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## NetFile Report Summary

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### I. Introduction

The purpose of the NetFile Report is to:

- Frame the NetFile public policy issues.
- Present an analysis of the issues surrounding the IRS's Free File Alliance.
- Present an analysis of the issues surrounding FTB's deployment of the NetFile Program.
- Make a recommendation regarding the future disposition of the NetFile program.

This summary provides a brief overview of the items shown above.

### II. NetFile Public Policy Issues

Certain issues consistently surface during NetFile discussions with the private sector, within written documents, and during public testimony. These public policy issues can be framed as:

- *Tax preparation: What is tax preparation? Is NetFile equivalent to tax preparation?*  
Based on recent discussions with members of the tax software industry, industry representatives define *tax preparation* as any type of application that does math calculations of any kind, including providing an automated "tax look-up" function.

In contrast, the previous Board has defined simple math calculations and tax look-up as good customer service and providing a service equivalent to those services offered in 21 other states.

- *Privacy: Who has access to taxpayer data? Is taxpayer data being shared? Are taxpayers giving their "meaningful consent" when they allow commercial software vendors access to their data?*

Some consumer advocates and taxpayers believe that their tax data should be available only to the government. They do not want a third party to have access to their data during the filing process. They prefer a direct-to-government solution.

Recently, Senate Bill 1 was signed into law. This law reflects the growing concern of Californians regarding the privacy of their information. It prevents law firms, banks, insurance companies, brokerages and a range of other companies that collect personal consumer data from sharing that information with affiliates or third parties.

### III. Analysis of the Issues

#### A. Customer Service

FTB receives over six million calls through its toll-free tax information lines each year. Several million of these calls are handled by the FTB's interactive voice response system. During fiscal year 2002/03, FTB's customer service representatives answered 2.2 million calls. During the first two weeks of April, FTB receives approximately 30,000 calls each day. On April 15, 2003, FTB's customer service representatives answered a record number of calls: 38,155.

FTB has received about 40 calls related to the NetFile program since its implementation. Scaled to eventual NetFile volume projections, this is a customer service obligation that FTB can absorb with minimal impact.

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### B. FTB Costing Methodology

FTB is required to follow guidelines and requirements set forth by the Department of Finance (DOF) to calculate the cost of projects. The guidelines set forth by the DOF follow GAAP (Generally Accepted Accounting Principles) with the exception of including calculations for depreciation and managerial overhead.

FTB completes an economic analysis for each technology project that it undertakes. The analysis captures the incremental costs to develop and maintain a proposed project. The analysis also includes a comparison of the program resources required before and after project implementation. However, the assessment of program resources is used only to calculate net project benefits. Program resources and managerial overhead are not included in the total project cost, as the department would pay these fixed cost resources despite the project's existence.

### C. System Architecture, Capacity, and Outage

#### *Architecture*

FTB deployed the NetFile project relatively quickly by leveraging infrastructure that has been established over the past ten years, including the FTB Website, network, database, e-file system, Direct Filing Portal, and security architecture.

#### *Capacity*

FTB's goal is to follow industry best practices in this area, with the understanding that industry best practices continue to evolve and that we will need to perpetually revisit capacity planning as we gather actual statistics about NetFile and FTB Website usage. FTB's capacity estimates will be certified through load testing. Actual results will be monitored throughout the filing season and capacity adjustments made as necessary.

#### *Outage*

Should an outage occur, FTB would immediately invoke the *System Collapse and Recovery Plan* with all the attendant contingency plans. FTB developed this plan for the initial release of NetFile and FTB staff is in the process of updating the plan for 2004. The plan, based on risk analysis, addresses all types of outages, outages due to disaster, server failure, over capacity, intrusion, national red alert, etc. Contingency plans provide guidance in taking quick action to provide an appropriate approach to the outage. Included in the 2004 plan will be a communication plan to promptly notify appropriate parties, in the event such is needed.

### D. Protecting Taxpayer Data

FTB is required by law to protect the confidentiality of tax return information and taxpayers' privacy.

FTB's Chief Information Security Officer, the Office of Privacy and Information Security, the Employee Relations and Worksite Security Bureau, and the Disclosure Office are tasked with overseeing FTB's privacy, security, and disclosure protection efforts, which include measures to protect, detect, and react. They are responsible to and work closely with FTB senior management and the executive officer to develop and implement privacy and security measures.

### E. Various Approaches to Free e-file

Based on efforts made by both the private sector and government, it is apparent that there is agreement that "free e-file" should be made available to at least some taxpayers. There is not agreement on "how" to make free e-file available.

Over the past few years, three free e-file models have emerged.

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1. *Citizen-to-government e-file*  
This is government-sponsored free e-file. The taxpayer's return is transmitted directly to government.

2. *Free File Alliance*  
This is private sector sponsored free e-file. First, the taxpayer's return is transmitted to a commercial e-file provider, and then the return is transmitted to government.<sup>1</sup>

The Free File Alliance opened the door to e-file to more taxpayers than ever before. Industry and the IRS work together to promote the program and its benefits.

3. *Memorandum of Agreement Program*  
This program features agreements between the private sector and government regarding private sector free e-file offers. Government prominently features the free e-file offers on its Website. This program provides taxpayers access to various commercial free e-file offers on the government Website.

As cited in the Department of the Treasury, Final Audit Report, the IRS chose the Free File Alliance model versus developing their own free e-file program due to time and resource shortages. In contrast, when the three-member Board directed FTB staff to develop a free e-file program, FTB staff was able to build upon a decade of foundational e-commerce projects, thus enabling the efficient and effective deployment of the NetFile program.

Additionally, FTB works with the private sector to feature their free e-file offers on the FTB Website through the Memorandum of Agreement Program.

### IV. Recommendation

There are several potential actions that can be taken regarding FTB's NetFile program. Following is an overview of those actions, in order of FTB staff preference.

1. *Status quo*  
FTB would proceed with the NetFile program as previously directed. FTB would continue its Memorandum of Agreement Program, thus providing the private sector the opportunity to feature their free e-file offers on the FTB Website.
2. *Retain current NetFile program but limit future NetFile enhancements to form-based, fillable and e-filable forms*  
This would entail filling the form out online (with automatic math and tax look-up), and e-filing to FTB upon completion. FTB would continue its Memorandum of Agreement Program, thus providing the private sector the opportunity to feature their free e-file offers on the FTB Website.
3. *Retain current NetFile program but discontinue further expansion and enhancements*  
FTB would limit the NetFile target audience to those taxpayers who are currently eligible. FTB would not add significant enhancements to the program. FTB would continue its Memorandum of Agreement Program, thus providing the private sector the opportunity to feature their free e-file offers on the FTB Website.
4. *Discontinue the NetFile program and establish a Free File Alliance.*  
FTB would discontinue the NetFile program for the 2004 process year. FTB would begin the process to establish a Free File Alliance.

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<sup>1</sup> In some cases, some providers collect certain taxpayer data from the tax return.

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FTB staff recommends # 1: *Status quo, continuing with free, direct, citizen-to-government e-file for all taxpayers.*

The following table shows an overview of the pros and cons associated with each potential action.

Potential Actions	Pros	Cons
1. Status Quo – Previous Direction. Keep MOA Program.	<ul style="list-style-type: none"> <li>A. Consistent with previous direction</li> <li>B. Continues to offer all taxpayers the choice of free, simple, citizen-to-government e-filing</li> <li>C. Allows State to recover sunk costs</li> <li>D. Maintains successful MOA program</li> </ul>	<ul style="list-style-type: none"> <li>A. Issues of competition with Industry remain</li> <li>B. Industry may pull all free offerings</li> </ul>
2. Retain current NetFile; limit future enhancements to fillable, e-filable forms. Keep MOA Program.	<ul style="list-style-type: none"> <li>A. Continues to offer taxpayers choice</li> <li>B. Limits future costs</li> <li>C. Allows State to recover sunk costs</li> <li>D. Enhancements will still provide an e-file format that covers all eligible filers</li> <li>E. Maintains successful MOA program</li> </ul>	<ul style="list-style-type: none"> <li>A. Departs from previous board direction</li> <li>B. Limits ease-of-use functions (forms-based is less user friendly)</li> <li>C. Limited issues of competition with Industry remain</li> <li>D. Industry may pull all free offerings</li> </ul>
3. Retain current NetFile; stop further development. Keep MOA Program.	<ul style="list-style-type: none"> <li>A. Offers choice to majority of taxpayers (simplest returns)</li> <li>B. Stops future one-time expenditures</li> <li>C. Allows State to recover sunk costs</li> <li>D. Maintains successful MOA program</li> <li>E. Leaves market segments open to Industry</li> <li>F. State spends only maintenance costs going forward</li> </ul>	<ul style="list-style-type: none"> <li>A. Departs from previous board direction</li> <li>B. Will not reach all eligible filers</li> <li>C. Limited issues of competition with industry remain</li> <li>D. Time and resources used to add Child and Dependents Care Credit lost</li> <li>E. Industry may pull all free offerings</li> </ul>
4. Take down NetFile; establish Free File Alliance. Discontinue MOA Program.	<ul style="list-style-type: none"> <li>A. Meets Industry objectives on non-competition</li> <li>B. Maintains emphasis of e-file growth and free e-file</li> <li>C. State spends no money for NetFile going forward</li> </ul>	<ul style="list-style-type: none"> <li>A. Reverses previous board direction</li> <li>B. Removes free, citizen-to-government choice for taxpayers</li> <li>C. NetFile investment wasted; could create negative perceptions in tight budget times</li> <li>D. Commercial privacy issues still persist</li> <li>E. Given mixed results of federal Free File Alliance, it may not be any better than current MOA program</li> <li>F. Cost to administer Free File Alliance program unknown</li> </ul>

# **Franchise Tax Board**

## **NetFile Report**

**September 2003**

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### **ATTACHMENTS**

# NetFile Report Franchise Tax Board

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## I. Introduction

This report is in response to a request from the Controller. At the April 29, 2003 meeting of the Board, the Controller requested a comprehensive report on the NetFile Program and the IRS' approach to free e-file, the Free File Alliance.

### A. *Purpose of Report*

The purpose of this report is to:

- Frame the NetFile public policy issues.
- Present an analysis of the issues surrounding the IRS's Free File Alliance.
- Present an analysis of the issues surrounding FTB's deployment of the NetFile Program
- Make a recommendation regarding the future disposition of the NetFile program.

Research and analysis for this report includes written input from the private sector on these issues<sup>1</sup>, various government reports, congressional testimony, media reports, California law, and FTB's internal policies and procedures.

### B. *Overview of Three-Member Board Direction Regarding e-file*

Following is an overview of significant Board discussions and decisions regarding e-file.

*September 1999*

#### *FTB Memorandum of Agreement Program established<sup>2</sup>*

Dr. Connell challenged the e-file Industry to provide free e-file to California taxpayers who were eligible to file the 540 2EZ tax return. The e-file private sector responded positively to this challenge. Consequently, FTB staff established the Memorandum of Agreement Program. These agreements with the e-file private sector document the terms and conditions of the free e-file offers.

#### *Internet e-file pilot project approved*

The Board approved the development and deployment of an Internet e-file pilot project. At that time, Member B. Timothy Gage stated, "...we need to understand what the government can do to provide a basic level of functionality with respect to e-filing...." In October 1999, the Internet e-file pilot project was discontinued due to a court action.

Regarding the deployment of an FTB Internet e-file program, Jean Alexander, representing Johan Klehs, Board of Equalization, stated, "Now we're in the electronic age. Why shouldn't the Franchise Tax Board, in a simple program --- as simple as possible --- make it possible for a taxpayer to file in the simplest and easiest way electronically?"

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<sup>1</sup> See Attachments 12, 13 and 14: *Request for Input List, Letter Requesting Input, and Input from Respondents*

<sup>2</sup> See Section VII for a discussion of the Memorandum of Agreement Program

## NetFile Report Franchise Tax Board

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*November 1999*

### *Direct Filing Portal established*

The Board directed FTB staff to develop an Internet Filing option. In response, FTB staff developed and deployed the “FTB Direct Filing Portal.” The purpose of this program is to provide taxpayers a direct-to-government e-file experience using e-file private sector software. The FTB hosts and promotes the DFP program on the FTB Website while private sector software developers develop tax software that provides a “direct connection” to FTB. Only one commercial e-file provider has developed a truly direct-to-FTB e-file product. This product became available late in the 2002 filing season.

*March 2002*

### *Downloadable 540 2EZ initiated*

The three-member Board directed the FTB staff to develop a “downloadable” 540 2EZ tax return. This was implemented in September 2002 but had no math or tax look-up functionality.

*October 2002*

### *Calculating and tax look-up approved for the Downloadable 540 2EZ*

The Board voted unanimously to add a calculating function and “tax look-up” function to the downloadable 540 2EZ, which had been implemented in the prior month.

When questioned by a private sector representative about adding the calculating function to the 540 2EZ, Dr. Connell responded, “Yes, I really debated, myself, Scott, about the calculator for many, many hours...But I really feel very strongly that we—this, to me, is about customer service...I wanted my legacy to be one of customer service; and I wanted my legacy to be one of, you know, equal access to the services that we had at the FTB.”

As the discussion progressed, Member Chiang stated, “you can’t put the taxpayers of the State of California and those of us in tax administration in a position where we look --- we just don’t offer equivalent services provided by other states.”

*November 2002*

### *Free, direct electronic filing program approved*

The Board directed staff to develop and deploy a “free, direct electronic filing” program. In response to the Board’s direction, staff developed and deployed the NetFile Program in April 2003.

### **C. NetFile Public Policy Issues**

Certain issues consistently surface during NetFile discussions with the private sector, within written documents, and during public testimony. These public policy issues can be framed as:

- *Tax preparation: What is tax preparation? Is NetFile equivalent to tax preparation?*



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Based on recent discussions with members of the tax software industry, industry representatives define *tax preparation* as any type of application that does math calculations of any kind, including providing an automated “tax look-up” function.

In contrast, the previous Board has defined simple math calculations and tax look-up as good customer service and providing a service equivalent to those services offered in 21 other states.

- *Is NetFile competing with Industry e-file products?*<sup>3</sup>
- *Privacy: Who has access to taxpayer data? Is taxpayer data being shared? Are taxpayers giving their “meaningful consent” when they allow commercial software vendors access to their data?*

Some consumer advocates and taxpayers believe that their tax data should be available only to the government. They do not want a third party to have access to their data during the filing process. They prefer a direct-to-government solution.

Recently, Senate Bill 1 was signed into law. This law reflects the growing concern of Californians regarding the privacy of their information. It prevents law firms, banks, insurance companies, brokerages and a range of other companies that collect personal consumer data from sharing that information with affiliates or third parties.

## II. IRS Free File Alliance

### A. Overview of the Free File Alliance Program

The Free File Alliance is described at the IRS Website as “*online tax preparation and electronic filing through a partnership agreement between the IRS and the Free File Alliance, LLC. In other words, you can e-file... free*”. An IRS spokesperson commented that, “Our objective with this program is to help many more people take advantage of e-filing with all of its benefits.”

The Free File Alliance opened the door to e-file to more taxpayers than ever before. Industry and the IRS worked together to promote the program and its benefits, as reflected in the following excerpts from Industry press releases. A release from Intuit, makers of TurboTax, stated:

*“The Alliance will offer tens of millions of taxpayers all the benefits of filing electronically: simplicity and saved time in their tax preparation; software, like TurboTax, that works with them to provide every opportunity for exemptions they may be entitled to; and more accurate and secure tax return filing. There will also be faster refund distribution by the IRS through electronic filing: people who once filed on paper and waited 8 weeks for a refund can now file for free online and see their refund check in as little as 10 days. To access these benefits, taxpayers need to go to the IRS web site.”*<sup>4</sup>

A release from H&R Block, said, in part:

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<sup>3</sup> Senator John Burton commented on the issue in a letter to the Board in November 2002. He wrote: “...But certainly, the state is not going to put the private tax preparation software companies out of business. These companies undoubtedly will always have a corner on the market of providing tax advice to taxpayers, in addition to tax preparation.”

<sup>4</sup> From an Intuit press release dated January 16, 2003.

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*"Taxpayers win because many will enjoy the benefits of e-filing for the first time, said Betsy Stephens, H&R Block's vice president of product strategy. The IRS wins because it will boost the number of e-filed returns, and H&R Block wins because it will introduce new users to our online tax program."*<sup>5</sup>

In its first year of operations about 2% (2.78 million) of those taxpayers eligible actually chose to use the Free File option.

### ***B. How the IRS Free File Program Works***

The IRS Website provides taxpayers step-by-step instructions on how to use the Free File program, as shown below.

#### *Step 1 Determine Your Eligibility:*

You must first determine your eligibility for using a particular company. You have two options:

1. Review the complete list of companies and their descriptions of services or;
2. Fill-out a brief questionnaire designed to assist you in narrowing your selection of a company.

#### *Step 2 Link to Free Service:*

After choosing a company, click on the company's Start Now link, which will send you directly to the company's web site. You then can begin the preparation of your tax return.

#### *Step 3 Prepare and File Income Tax Return:*

The company's software will prepare and e-file your income tax returns using proprietary processes and systems. Electronically filed returns will be transmitted by the company to the IRS using the established e-file system, which uses secure telephone lines. An acknowledgment file, notifying you that the return has been either accepted or rejected will be sent via email from the company.

### ***C. Overview of the Department of the Treasury Audit Report on the Free File Alliance***

After one filing season of operation, the Department of the Treasury issued an audit report titled: *"Improvements Are Needed to Insure Individual Taxpayers Have an Easy No-Cost Option to e-file their Tax Returns"*<sup>6</sup> The Final Audit Report was released in August 2003. It provides an overview of the Free File Alliance Program, in addition to discussion of various recommended improvements that the IRS should make to the program. The Department of the Treasury, Inspector General for Tax Administration, prepared the report.

The impetus for an IRS free e-file program began with the President's Fiscal Year 2003 budget. It included a proposal for "an easy, no cost option for taxpayers to file their tax returns online."

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<sup>5</sup> From an H&R Block press release dated January 16, 2003.

<sup>6</sup> Information is from Department of the Treasury, *Final Audit Report-Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to e-file Their Tax Returns*, August 14, 2003. See Attachment 10 for full report.

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Following that, the Office of Management and Budget recommended “EZ Tax Filing,” “whereby the IRS provided taxpayers free online tax return preparation and filing services....”

The IRS chose to partner with the private sector rather than develop and deploy its own free e-file program. The final audit report cites three key reasons for this decision by the IRS:

1. IRS desire to quickly implement a free file program
2. Lack of immediate resources
3. Industry urging the IRS not to compete with it

### ***D. IRS Free File Program Issues***

The Final Audit Report cited several issues that the IRS should address to improve the Free File Alliance Program, including:

1. *The group of taxpayers eligible was not consistent.*

The Free File Alliance partnership agreement provides that at least 60% of taxpayers nationwide will be eligible for free e-file. During the past filing season, the percent eligible fluctuated from about 60% of taxpayers to over 90% due to the changing offers of the Free File Alliance members.

2. *Taxpayers were not always provided with timely and accurate participation information.*

The terms of the Free File Alliance agreement allow the e-file Industry to change their offerings during the filing season. The IRS did not always alert taxpayers to changes to the offerings. This could result in taxpayers being unaware of an offering that they could qualify for, or cause them to proceed with an offer that may no longer be free to them.

3. *The IRS was limited in its ability to independently monitor and measure the success of the Program.*

The Final Audit Report recommended monitoring of the Free File Alliance Websites to assure compliance with key provisions in the Free File Agreement, including privacy, security, and customer service.

For example, regarding customer service, “Some companies were charging \$14.95 for telephone assistance, and others limited their customer service to frequently asked questions. One company was charging \$2.95 for re-filing a tax return that was rejected by the IRS because of an error.” The IRS is working with the Free File Alliance members to correct these issues and is considering hiring an outside contractor to monitor, throughout the filing season, members’ compliance with the Free File Agreement. The costs to administer the Free File program are not available.<sup>7</sup>

### ***E. Stakeholder Comments Regarding the Free File Alliance***

The reaction from stakeholders to the IRS’s Free File Alliance program has been varied, as shown below.

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<sup>7</sup> The information from the Final Audit Report is directly quoted or paraphrased from the report.

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**Doug Farry, Intuit Senior Manager, Corporate Affairs**, expressed their support of the FFA at the April 29 meeting of the Franchise Tax Board. He said, regarding the FFA that "...there's zero cost...There's no product development. There's no engineering. There's no customer service calls. No tax questions. All of that is handled by private industry."<sup>8</sup>

**Jason Mahler, CCIA**, stated that "A variety of states...have witnessed a dramatic rise in e-filing through their participation in this partnership known as the Free File Alliance."

A recent report from the **National Taxpayer Advocate** listed the following concerns (excerpted from the report).

- Companies appear to be marketing to taxpayers without their meaningful consent.  
"Products are being marketed to taxpayers, in some instances, without the taxpayer's meaningful consent. Section 7216 of the Internal Revenue Code and its implementing regulations provide some specific rules relative to consent where a tax return preparer, which includes software companies, solicits other business unrelated to the IRS. In, essence, the consent must be in writing, secured in advance, and must be meaningful. Generally, a consumer's consent is only considered meaningful if the marketing company provides adequate disclosure regarding the nature of the "consent" it is seeking."
- IRS appears to be endorsing products.  
"The IRS needs renewed focus on disclaimers and procedures that clearly prohibit any government endorsement of the many products and services offered by companies participating in the Free File Alliance".
- Free File is not available to all taxpayers.
- Insufficient data to evaluate the program.  
"IRS does not have sufficient data to evaluate whether the Free File program is meeting its objectives. For example, the IRS states that approximately 2.7 million taxpayers filed through Free File. However, the IRS did not require Free File members to provide the SSNs of taxpayers who filed through Free File (which would enable the IRS to determine whether they are first-time e-filers). Thus, the IRS currently has no way to determine how many of these taxpayers would have filed electronically using different methods and how many taxpayers are new filers whom Free File brought into the e-filing system."<sup>9</sup>

In May, the **General Accounting Office** reported on IRS modernization efforts, including the IRS e-file Program. The GAO regarded the FFA as less than successful. Following is an excerpt from testimony given on May 20, 2003.

*The (e-file) increase to an estimated 53 million returns represented the smallest percentage increase in the last 9 years. The current growth rate will not allow IRS to achieve its goal to have 80 percent of all tax returns filed electronically by 2007.*

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<sup>8</sup> The FTB handles hundreds of customer service calls that are due to commercial software issues. Understandably, when taxpayers have a problem with their tax return, they call the FTB. They do not always call their software company first. This may be because they are not aware that the issue they are dealing with involves their software, or they may be trying to avoid the cost of a customer service call.

<sup>9</sup> Bulleted text is quoted from *The National Taxpayer Advocate's Report to Congress, Fiscal Year 2004 Objectives, June 30, 2003*

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*Instead, based on current growth rates, IRS will achieve about 61 percent of all individual returns by 2007.*

*This year, like every other year since the initiation of electronic filing, IRS has taken actions to alleviate impediments to electronic filing and encourage taxpayers to file electronically. IRS entered into an agreement with the Free File Alliance, a consortium of 17 tax preparation companies, to offer free on-line tax preparation and filing services for at least 60 percent of all taxpayers. However, as of April 16, 2003, only about 2.7 million taxpayers file via the Free File Alliance consortium, and IRS estimated that only about 1 million were new electronic filers. Slower growth in electronic filing will reduce IRS's ability to shift resources out of paper return processing.<sup>10</sup>*

Earlier this year, several leading **consumers groups** (NCLC, CFA, US PIRG, and Consumers Union) issued a joint letter stating,

*"Instead of entering into this Agreement, which is of limited benefit and exposes taxpayers to the risks of usurious tax refund loans<sup>11</sup>, we urge the IRS to provide e-filing on its own website. We also urge the IRS to provide more free tax preparation services to low-income taxpayers."*

### **F. Comparison of IRS and FTB e-file Program Volumes and Growth**

Overall, the IRS e-file Program showed a 13% increase over last year. The IRS' online e-file program realized an increase of about 27% over last year. The FTB e-file Program total volumes increased by about 20%. FTB online e-file volume increased by 19%. The following tables show the detail regarding IRS and FTB e-file volumes.

Table 1: Comparison of IRS and FTB <u>Total e-file</u> Growth				
2002 vs. 2003				
	2002 Total e-file	2003 Total e-file	Growth	Growth as Percentage
<b>IRS</b>	42,375,000	48,400,000	6 million	13%
<b>FTB</b>	3,115,000	3,732,000	617,000	20%

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<sup>10</sup> GAO Testimony, Before Congressional Committees, May 20, 2003, *IRS MODERNIZATION, Continued Progress Necessary for Improving Service to Taxpayers and Ensuring Compliance*, GAO-03-796T

<sup>11</sup> These loans are referred to as "refund anticipations loans". Typically they are very high interest with APRs ranging from 67% to as much as 700%. They are secured by the taxpayer's refund.

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<b>Table 2: Comparison of IRS and FTB <u>Online e-file</u> Growth</b>				
<b>2002 vs. 2003</b>				
	2002 Online e-file	2003 Online e-file	Growth	Growth as Percentage
<b>IRS</b>	9,353,000	11,866,000	2.5 million	27%
<b>FTB</b>	718,000	852,000	134,000	19%

<b>Table 3: Comparison of IRS and FTB <u>Practitioner e-file</u> Growth</b>				
<b>2002 vs. 2003</b>				
	2002 Practitioner e-file	2003 Practitioner e-file	Growth	Growth as Percentage
<b>IRS</b>	33,022,000	36,534,000	3.5 million	11%
<b>FTB</b>	2,397,000	2,880,000	483,000	19%

*Mandatory e-file*

The approved California State Budget for 2003-2004 includes a provision making e-file mandatory for returns prepared by tax practitioners who prepare more than 100 returns. The FTB anticipates up to 4 million additional e-file returns due to this mandate.

For the 2003 filing season, FTB received about 3.7 million e-file returns of a total 14.2 million personal income tax returns filed. During the 2004 filing season, FTB could potentially receive over 8 million e-file returns, about 55% of all personal income tax returns.

### **III. NetFile Program Overview**

#### **A. Background**

The NetFile Program was established in response to a motion made and adopted at the November 26, 2002 meeting of the Franchise Tax Board. At that time, the three-member Board directed staff *“to make the following California income tax returns available for free, direct electronic filing for the 2002 tax year filing season, or as soon as possible thereafter: The 540 2EZ Direct, previously approved by the Board, all 540As; and all 540s, including those with schedules or a federal 1040 to be attached as practicable, meaning, forms used by no less than 125,000 California taxpayers.”*

Consistent with direction from the Board, FTB staff developed and deployed the NetFile Program. NetFile is aimed at taxpayers who prefer a free, “no frills”, government-operated e-file option. NetFile does not attempt to sell the taxpayer additional products, and does not expose their tax data to a nongovernment third party. It does not include tax advice features.

#### **B. How NetFile Works**

Currently, NetFile provides the functionality to create and e-file all returns meeting the criteria for the Form 540 2EZ (over 4 million), the majority of the returns meeting the criteria for the

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Form 540A (over 1 million)<sup>12</sup>, and a very limited number of those meeting the Form 540 criteria,<sup>13</sup> totaling about 5.7 million returns eligible for the NetFile Program.

NetFile uses a “formless” approach for tax return filing. In other words, taxpayers do not need to select a form type, such as Form 540A, before beginning the NetFile process. On a screen-by-screen basis, generally divided by filing subject (name/address, dependents, income, expenses, tax due/overpaid), taxpayers use a combination of check boxes and data fields to enter their tax return information. They use “Back” and “Continue” buttons to move among screens, and rely on the NetFile Program to perform math computations and to compute their final liability or overpayment amount. Taxpayers are able to complete a NetFile return in 30 minutes, or less, based on a recent FTB survey of NetFile users. For the convenience of taxpayers, the final, printable tax return that NetFile provides to taxpayers is a traditional FTB tax form, as taxpayers would expect.

NetFile is a single-session process; taxpayers are not allowed to save their data and come back later to complete their return. It does not provide tax advice, such as a “deduction finder.” Rather, it presents the tax booklet instructions in pop-up instructional windows and enforces standard e-filing edits as well as the instructional edits (e.g., letters cannot be entered in a numeric field, forms must be minimally completed, the taxpayer must qualify to claim the nonrefundable renter’s credit).

### **C.     *NetFile Volumes***

NetFile was implemented on April 13, 2003 when a link was added to FTB’s site. Within 2.5 days over 10,000 taxpayers took advantage of the NetFile application. This volume of traffic indicates that some taxpayers are interested in Government providing a free and confidential e-file service. Taxpayers learned about NetFile primarily by visiting the FTB’s Website or the State of California’s Website. The FTB Website provides information on all e-filing options available for California returns, including NetFile. Taxpayers may compare and choose from any of the options. To date 13,205 taxpayers have filed returns using NetFile. In a recent NetFile survey<sup>14</sup>, 70 percent of the respondents stated this was the first year they had e-filed their California tax return, with 84 percent stating they would likely use NetFile again next year. These results indicate that FTB will meet one of the core objectives of NetFile, that of bringing in more new e-filers.<sup>15</sup>

Currently, FTB staff is adding the Child and Dependent Care Credit form to the NetFile program, making another 700,000 taxpayers eligible to use NetFile. This will increase the total taxpayers eligible to NetFile to about 6.4 million.

### **D.     *NetFile Survey Results***

In April, FTB conducted a survey<sup>16</sup> of NetFile users to collect data regarding their experience with NetFile. FTB mailed 830 surveys to a random sample of NetFile users. Two hundred and

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<sup>12</sup> Functionality is provided for all Form 540A taxpayers with the exception of those claiming Child and Dependent Care Credit and/or those whose income levels require consideration of the alternative minimum tax calculation.

<sup>13</sup> Functionality is provided for the 540 taxpayers meeting the same tax situations as described for the 540A but includes those with additional income from lottery winnings.

<sup>14</sup> See below for further discussion of the survey results.

<sup>15</sup> See Attachments 1 and 2: *NetFile Flow Chart: Taxpayer Experience and Representative Screen Shots from the NetFile Program*.

<sup>16</sup> See Attachment 4: *2003 NetFile Survey*

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sixty-eight taxpayers returned their surveys, representing a 33% response rate. Following is an overview of the responses.

- The majority of respondents stated that they would likely use NetFile again next year. Those who had a refund or zero-balance return were slightly more likely than those who had a balance due return.
- Approximately three-fourths of the respondents completed their returns in less than 30 minutes. In order to determine if it would be necessary to extend the timeout<sup>17</sup> period and to evaluate the flow of the service, the survey respondents were asked to identify how long it took them to complete their return using NetFile. Excluding the undecided responses, over a quarter of the respondents (28%) stated it took them less than 15 minutes to complete their returns using NetFile. Forty-five percent said it took them 15-29 minutes and 21% said it took them 30-44 minutes. Collectively, this means that 73% of the respondents completed their returns in less than 30 minutes and 94% completed their returns in less than 45 minutes.

Positive written comments from survey respondents included the following:

- *“Very convenient. Keep it going.”*
- *“A great service! Worked quickly even at “the last minute”! I highly recommend it to anyone with a relatively simple return-for others, it’s at least worth a try!”*
- *“I hope you have this available next year too.”*
- *“e-filing should be free for everybody so that more people will choose it over paper filing.”*
- *“I would have filed federal online but it’s not free. I already had done my taxes but they want you to use a service.”*
- *“I will start filing my federal return electronically as soon as I can do that directly too.”*

Suggestions and complaints from survey respondents included the following:

- *“Accessing pin # could be easier took too long to get”.*
- *“It would be helpful if I could save, exit the program, then return later to complete.”*
- *“It wasn’t clear that you could only declare your misc. income if said no to the question about wages and tips.”*

Based on survey results and other input from NetFile users, it appears that NetFile is a successful program which taxpayers find beneficial.

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<sup>17</sup> The timeout period is 20 minutes of inactivity per web page.



**IV. Various Approaches to Free e-file: FTB and Other States**

***A. FTB Memorandum of Agreement Program***

In 1999, FTB initiated the Memorandum of Agreement Program. FTB collaborates with commercial online filing companies to attract taxpayers to e-file. In essence, the MOA program enables such a company to benefit from Web traffic sent via hyperlinks from FTB's Website to the commercial Website. FTB's MOA program is very similar to the IRS's Free File Alliance approach.

Important features of FTB's MOA program include:

- Availability to all interested companies.
- No financial reimbursements apply; all MOAs are non-monetary in nature.
- FTB or participants may unilaterally terminate upon 15 days written notice.
- Participants hold FTB harmless for claims or causes of action by third parties.

Important terms and conditions that apply to FTB's MOA program include:

- *Technical requirements* such as that the product maintain an 80 percent acceptance rate for submissions to FTB.
- *Customer service requirements* such as that the company notify FTB within specified timeframes if their Website or systems go offline.
- *Privacy and confidentiality requirements* including that the company clearly inform taxpayers of the cost for using their online filing service and that the company conform to the state privacy and disclosure mandates.

FTB is committed to featuring the private sector free offers prominently on the FTB Website. In fact, the "free offers" page is just one click from the FTB Homepage. In addition, promotional language provided by the private sector participants is posted on the FTB Website, similar to the IRS Free File alliance approach.<sup>18</sup>

Currently, there are nine private sector companies that offer free e-file products to California taxpayers.

***B. Other States' Free File Alliance Programs***

Eight states have established Free File Alliance programs. The states are Arizona, Georgia, Idaho, Massachusetts, Michigan, Mississippi, New York and Rhode Island.<sup>19</sup>

Based on information from these states and information from the Federation of Tax Administrators, one of the states listed above closed their direct online filing program due to the Free File Alliance. The reason given was that certain software companies indicated that they would not support the state's 2-D bar code efforts unless the state closed their direct filing program. The state believed that the immediate savings associated with 2-D bar code outweighed

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<sup>18</sup> See Attachment 10: *FTB Website Screen Shots* for placement of hyperlinks.

<sup>19</sup> States continue to consider plans for the next filing season. Additional states may develop their own direct programs and still others may join the Free File Alliance. Therefore these numbers may change. For additional information, see Attachment 12: *Other States: Free Internet e-file and Free File Alliance*

the benefits of a direct file program. The other states had decided not to pursue their own direct filing programs based on resource issues.

Last filing season, Free File Alliance states experienced increases in the number of e-filers ranging from 22% to 150%. These states are at varying points in the online e-file “product life cycle.” This life cycle variance may account for the differences in increases to volumes. Some states may be currently experiencing large increases because their programs are relatively new compared to the IRS’s and the FTB’s online e-file programs, which have been in place for nearly ten years.

**C. *Other States’ Direct e-file Programs***

There is a nationwide trend toward establishing direct citizen-to-government e-file programs by state revenue departments. Currently, there are 21 states that offer direct, citizen-to-government e-file programs, similar to FTB’s NetFile program.

FTB staff contacted representatives of other states via telephone and e-mail regarding the disposition of their direct e-file programs. This research indicates that these programs will continue in the future. In previous years, two states closed their direct filing programs: Oklahoma and Vermont. Oklahoma closed because they were working through an outside vendor and were paying a “per return” fee that became too high for them. Vermont closed their program due to vendor performance issues. Neither state has announced a commitment to the Free File Alliance at this time.

**V. *Customer Service***

**A. *FTB Customer Service***

FTB’s Taxpayer Services Center is responsible for responding to taxpayers’ inquiries received by telephone, written correspondence, or non-confidential Internet e-mail.

FTB’s customer service objectives are to resolve problems at the first point of contact, respond to correspondence within 21 days of receipt, and answer e-mail within two working days of receipt. The primary goal of the Taxpayer Services Center is to provide high quality, “one and done” customer service.

The Taxpayer Services Center has approximately 250 customer service representatives providing toll-free telephone assistance to taxpayers. FTB’s Taxpayer Services Center efficiently handles over six million calls per year. Customer service representatives provide assistance to taxpayers regarding the Personal Income Tax, Business Entity, and Homeowner & Renter Assistance programs. In addition, customer service representatives answer approximately 375,000 pieces of general correspondence annually. To help meet the needs of all Californians, customer services are available in English, Spanish, Russian and many other languages.

FTB’s call center performance is measured using industry-wide metrics. These performance measures include answering all calls within two minutes at least 80% of the time, returning all calls within two business days, and maintaining a customer service call quality rating of 97% or better, based on nine customer service performance factors.

FTB receives over six million calls through its toll-free tax information lines each year. Several million of these calls are handled by the FTB’s interactive voice response system. During fiscal

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year 2002/03, FTB's customer service representatives answered 2.2 million calls. During the first two weeks of April, FTB receives approximately 30,000 calls every day. On April 15, 2003, FTB's customer service representatives answered a record number of calls: 38,155.

FTB has received about 40 calls related to the NetFile program since its implementation.

## **VI. FTB Costing Methodology**

The information in this section is provided in response to questions from the private sector regarding the costing methodology that FTB uses to cost its projects. As discussed below, FTB strictly adheres to the guidelines set forth by the Department of Finance (DOF).

As a matter of courtesy to the private sector, FTB has used various costing models in this report to cost the NetFile project. These models do not adhere to State requirements and therefore cannot be used by FTB for official NetFile costing purposes. These models are provided for information and comparison purposes only. The costing models are shown in Section VII.

FTB is required to follow guidelines and requirements set forth by the DOF to calculate the cost of projects. The guidelines set forth by the DOF follow GAAP (Generally Accepted Accounting Principles) with the exception of including calculations for depreciation and managerial overhead.

FTB completes an economic analysis for each technology project that it undertakes. The analysis captures the incremental costs to develop and maintain a proposed project. The analysis also includes a comparison of the program resources required before and after project implementation. However, the assessment of program resources is used only to calculate net project benefits. Program resources and fixed managerial overhead are not included in the total project cost, as the department would pay these fixed cost resources despite the project's existence.

The following tables provide an overview of the elements in a typical project costing.

**Table 1: Project Elements Defined as *One-Time Costs***

System planning	System development	Project management
System acquisition	System analysis	System design
System construction	System testing/conversion	System installation
Project oversight	Facility modifications resulting from project	Equipment purchased specifically for the project (one-time acquisition expense)

**Table 2: Project Elements Defined as *Continuing Costs***

Ongoing system maintenance	Ongoing system operation functions, such as <ul style="list-style-type: none"><li>▪ Database admin.</li><li>▪ Internet/browser support</li><li>▪ Application support</li><li>▪ IT Help desk support</li><li>▪ Computer operations</li></ul>	<ul style="list-style-type: none"><li>▪ Hardware lease/maintenance</li><li>▪ Software maintenance/licenses</li><li>▪ Telecommunications</li><li>▪ Any ongoing facility expenses specifically required by the project</li></ul>
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**Table 3: Project Elements Defined as *Staff Costs***

Salary and wages	Benefits	Standard allocation for OE&E <sup>20</sup>
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**Table 4: Project Elements that are *NOT included as a Cost***

Conducting a feasibility study	Completing a feasibility study report	Equipment already in place that serves as the infrastructure on which the new project is built
Depreciation	Fixed managerial overhead	

## VII. NetFile Project Costing

For purposes of information and comparison, FTB calculated NetFile project costs using various costing models. In addition, a table is provided reflecting potential costs for a project similar to NetFile (excerpted from an article provided by the Citizens Against Government Waste) and a table showing FTB expenditures for e-commerce projects over the past decade.

<b>A.</b>	<b><i>DOF requirements costing model:</i></b>	<b><i>\$367,046</i></b>
<b>B.</b>	<b><i>DOF Plus Overhead (11.75% plus admin benefits) Model:</i></b>	<b><i>\$406,158</i></b>
<b>C.</b>	<b><i>Private sector model:</i></b>	<b><i>\$575,512</i></b>
<b>D.</b>	<b><i>Citizens Against Government Waste (CAGW) Estimate</i></b>	<b><i>\$34,000,000</i></b>

It is valuable to note that over the past decade FTB's core electronic commerce infrastructure projects (including maintenance) cost approximately \$8.1 million.

The four costing models, and the calculated costs for NetFile per each model, are shown below.

**A. DOF Requirements Model<sup>21</sup>**

Actual Project Costs (FY 2002/2003 and July 2003)

	Personnel Years	Personal Services	OE&E	Totals
Development costs (one-time):	3.7	\$300,650	\$46,269	<b><i>\$346,919</i></b>
Maintenance costs (on-going):	.1	\$7,801	\$968	<b><i>\$8,769</i></b>
<b><i>Totals</i></b>	<b><i>3.8</i></b>	<b><i>\$308,451</i></b>	<b><i>\$47,237</i></b>	<b><i>\$355,688</i></b>

	Personnel Years	Personal Services	OE&E	Totals
Staff Training	.2	\$5,823	\$903	<b><i>\$6,726</i></b>
Marketing	.1	\$3,761	\$871	<b><i>\$4,632</i></b>
<b><i>Totals</i></b>	<b><i>.3</i></b>	<b><i>\$9,584</i></b>	<b><i>\$1,774</i></b>	<b><i>\$11,358</i></b>
<b><i>Actual costs grand total</i></b>	<b><i>4.1</i></b>	<b><i>\$318,035</i></b>	<b><i>\$49,011</i></b>	<b><i>\$367,046</i></b>

<sup>20</sup> Departmental overhead is not included in project cost except as captured in the operating expense and equipment (OE&E) allocated to each staff position. Staff OE&E includes, but is not limited to, minor equipment (including personal computers) software, modular furniture, software maintenance, printing, communications, telephone service, telecommunication supplies, travel, training, reprographic supplies, facilities (includes utilities, janitorial services, security, and waste removal service--does not include rent, recurring maintenance, facility planning, repairs, alterations, and facility goods).

<sup>21</sup> Refer to Section III, Tables 1, 2, 3, and 4 for details on elements included in each category.

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**B. DOF Plus Overhead (11.75% plus admin benefits) Model**

Actual Project Costs (FY 2002/2003 and July 2003)

	Personnel Years	Personal Services	OE&E	Totals
Development costs (one-time):	3.7	\$300,650	\$46,269	<b>\$346,919</b>
Maintenance costs (on-going):	.1	\$7,801	\$968	<b>\$8,769</b>
Overhead (11.75%)	.447	\$37,989		<b>\$37,989</b>
<b><i>Totals</i></b>	<b><i>4.247</i></b>	<b><i>\$346,440</i></b>	<b><i>\$47,237</i></b>	<b><i>\$393,677</i></b>

	Personnel Years	Personal Services	OE&E	Totals
Staff Training	.2	\$5,823	\$903	<b>\$6,726</b>
Marketing	.1	\$3,761	\$871	<b>\$4,632</b>
Overhead (11.75%)	.035	\$1,123		<b>\$1,123</b>
<b><i>Totals</i></b>	<b><i>.335</i></b>	<b><i>\$10,707</i></b>	<b><i>\$1,774</i></b>	<b><i>\$12,481</i></b>
<b><i>Actual costs grand total</i></b>	<b><i>4.582</i></b>	<b><i>\$357,147</i></b>	<b><i>\$49,011</i></b>	<b><i>\$406,158</i></b>

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## C. Private Sector Model

Intuit provided FTB an example of a costing model that might be used by them when costing a project. For information and comparison purposes only, FTB calculated the costs of the NetFile project using this model. The primary differences between the project costing model provided by Intuit and the project costing requirements of the DOF appear to be that the Intuit model includes:

- Costs associated with management overhead.
- Costs associated with previously purchased infrastructure equipment.
- Costs associated with the project's portion of the infrastructure's ongoing resources.

<b>Private Sector Model<sup>22</sup></b>					
<b>Model Provided by Intuit</b>					
<b>Major Categories</b>	<b>Year 1</b>	<b>Year 2</b>		<b>Year 3</b>	
	<b>Start-Up</b>	<b>Maintenance</b>	<b>Growth</b>	<b>Maintenance</b>	<b>Growth</b>
1. User Registration	\$ 10,274	\$ 635	\$ 159	\$ 549	\$ 137
2. User Interface	\$ 252,282	\$ 7938	\$ 1,985	\$ 6,858	\$1,714
3. Calculations	\$ 40,405	\$12,066	\$ 3,016	\$ 10,423	\$2,606
4. e-filing	\$ 17,343	\$ 1,587	\$ 397	\$ 1,371	\$ 343
5. Scalability	\$ 53,078	\$ 318	\$ 79	\$ 274	\$ 69
6. Infrastructure	\$ 25,451	\$ 8,358	\$ 2,089	\$ 8,600	\$2,150
7. Security	\$ 6,859	\$ 619	\$ 155	\$ 637	\$ 159
8. Bus. Continuity Planning	\$ 4,996	\$ 318	\$ 79	\$ 274	\$ 69
9. Operations	\$ 24,441	\$ 1,587	\$ 397	\$ 1371	\$ 343
10. Technical Support	\$ 6,686	\$ 4,762	\$ 1,191	\$ 4,114	\$1,029
11. Management	\$ 133,697	\$ 2,540	\$ 635	\$ 2,194	\$ 549
<b>TOTAL</b>	<b>\$ 575,512</b>	<b>\$40,728</b>	<b>\$10,182</b>	<b>\$36,665</b>	<b>\$9,168</b>

*The costs shown above are as of July 31, 2003.*

<sup>22</sup> The year two and three estimates are based on the Feasibility Study Report (FSR) (Year 2 \$36,749 & Year 3 \$31,456). An additional 8% was added to the FSR estimated cost to account for managerial overhead expense resulting in Yr. 2 & 3 costs of respectively, \$39,689 and \$34,287. The cost estimates were then broken into the following percentages: User Reg (2%); User Interface (25%); Calculations (38%); e-filing (5%); Scalability (1%); Business Continuity (1%); Operations (5%); Technical Support (15%); Management (8%). Estimates for Infrastructure and Security are based on NetFile projected numbers and the amount of Information Technology (IT) hours listed on FTB's IT Baseline for fiscal year 2001-2002 for support of Electronic Data Security and Network Infrastructure. See Attachment 5 for additional detail.

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**D.      *Citizens Against Government Waste (CAGW) Cost Categories***

The following table shows the estimated costs for developing a program similar to the NetFile Program, based on CAGW's calculations.<sup>23</sup>

Citizens Against Government Waste Model		
Expense Category	Description	Yearly Cost
Data Center	Internet servers, connectivity and related equipment	\$12,600,000
Engineering	Design, configuration, and operational assets	\$ 9,000,000
Tax Development	Creation and refinement of online tax forms and instructions	\$ 2,000,000
Technical Support	Customer service representatives, FAQs, telephone service centers, etc.	\$ 4,400,000
Marketing	Mailings, advertisements and related promotional activities	\$ 4,000,000
Administration	Overhead and management costs	\$ 2,000,000
TOTAL PER YEAR:		<b>\$34,000,000</b>

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<sup>23</sup> This model was taken from an article entitled, *California's Franchise Tax Board as H&R Block – A Costly Gamble*

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The following table reflects the costs incurred by FTB over the past decade for core electronic commerce projects. These projects provide the foundation for FTB to effectively and efficiently deploy additional e-government programs, such as NetFile.

<b>FTB's Core Electronic Commerce (ECOM) Infrastructure Projects</b>			
<b>Year Implemented</b>	<b>Project</b>	<b>Development Costs</b>	<b>Maintenance Costs</b>
1993	Electronic Funds Transfer (EFT)	\$ 158,000	\$ 245,000
1995	Electronic Filing of Returns (e-file)	\$1,067,000	\$1,394,000
1996	FTB Collection Py Integration Pilot (ECPiP) Static Website	\$ 398,000	\$ 648,000
1998	Direct Deposit of Refund (DDR) ELF (e-file) Server Upgrade Electronic Commerce Network Infrastructure	\$ 503,000	\$ 273,000
1999	Electronic Funds Withdrawal (EFW) Enterprise Network Model Firewall	\$ 49,000	
2000	E-Services Section File Server Replacement e-Gateway Switching Hub e-Gateway server monitoring FTB Web IDS e-Gateway dBase Backup e-Gateway dBase Backup Software FTB Web Internet Network Redundancy FTB Web/ECOM Internet Net. Security Monitoring FTB Web/ECOM Internet Net. Application Testing	\$ 450,000	
2001	Direct Filing Portal (DFP) Customer Service Number (CSN) Intrusion Detection System Firewall PDC and BDC Server Refresh Software Content Management Tool Internet Transaction Server Web Farm Expansion Active Content Filtering	\$1,888,000	\$ 550,000
2002	2EZ Direct (Fillable, e-filable Form 540 2EZ)	\$ 66,000	\$ 7,000
2003	NetFile (Project Costs as of July 31, 2003)	\$ 351,000	\$ 9,000
<b>TOTAL PROJECT COSTS FOR FTB's CORE ECOM INFRASTRUCTURE:</b>		<b>\$4,930,000</b>	<b>\$3,126,000</b>
		<b>\$8,056,000</b>	



## **VIII. System Architecture, Capacity, and Outage**

### **A. System Architecture**

FTB deployed the NetFile project relatively quickly by leveraging infrastructure that has been established over the past ten years, including the FTB Website, network, database, e-file system, Direct Filing Portal, and security architecture.

Experts within FTB reviewed the design of NetFile and gave recommendations for its development. In addition, FTB is in the process of hiring a consultant to evaluate its broader application architecture.

For project management purposes, FTB staff relies on PMBOK (*A Guide to the Project Management Body of Knowledge*) standards and methodology, as well as standards set by the Department of Finance. As such, FTB staff take appropriate initiating, planning, executing, controlling, and closing steps, all with appropriate levels of review and approval, to deploy information technology projects.

Engineering and testing of applications are a central component of project planning and execution for FTB projects. For the chosen design, FTB uses standards in application development, both for the content as well as the functionality of the application. But testing really proves the value of engineering. For example, quality assurance, usability, integration, break, load, and security testing prove the application to be deployable. Only after successful benchmarks are met within these testing methods does FTB release an application to production, which was the case with NetFile.

### **B. System Capacity**

FTB is in the process of finalizing the NetFile capacity analysis for 2004. The methodology<sup>24</sup> is primarily based on business assumptions in relation to system users and is designed to determine:

- The maximum number of active users of NetFile.
- The frequency of use of NetFile during the peak periods of use.

Current industry thinking on the issue of capacity planning for Web applications and Websites does not specify a fail-safe process for sizing a Website in such a way as to guarantee avoiding an over-capacity problem. The main problem the FTB is facing is the same as what large Websites face: estimating surges of demand compared to system reaction and processing time. Large Websites size their networks 4 to 5 times larger than their capacity “estimates” indicate, yet have experienced outages when demand exceeded their estimate. Industry experts acknowledge that their methods of estimating “are not scientific.” Yet they make every reasonable attempt to discern the demand on their Websites and Web applications by carefully examining their business and possible anomalies.

FTB faces a problem that few commercial Websites have to deal with: “critical mass” demand on one day of the year, April 15th. Websites in the income tax business must also deal with this issue. As an example, in the 2003 filing season, one Website that participated in FTB’s e-file

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<sup>24</sup> Support for this approach can be found in “*Best Practices in Estimating Workloads for Initial Infrastructure Sizing*,” by Giga Information Group, Inc.

program dealt with their capacity demand by temporarily disabling the ability to review the completed tax return in PDF format.

FTB experienced some capacity problems on April 15, 2003 due to forms download demand. For a period of about two hours, forms downloads were unavailable while the forms were moved to stand-alone servers to allow better management of network traffic.

FTB's goal is to follow industry best practices in this area, with the understanding that industry best practices continue to evolve and that we will need to perpetually revisit capacity planning as we gather actual statistics about NetFile and FTB Website usage. FTB's capacity estimates will be certified through load testing. Actual results will be monitored throughout the filing season and adjustments made as necessary.

**C.     *System Outage***

Should an outage occur, FTB would immediately invoke the *System Collapse and Recovery Plan* with all the attendant contingency plans. FTB developed this plan for the initial release of NetFile and FTB staff is in the process of updating the plan for 2004. The plan, based on risk analysis, addresses all types of outages, outages due to disaster, server failure, over capacity, intrusion, national red alert, etc. Contingency plans provide guidance in taking quick action to provide an appropriate approach to the outage. Included in the 2004 plan will be a communication plan to promptly notify appropriate parties, in the event such is needed.

**IX.    Protecting Taxpayer Data**

**A.     *Privacy and Security***

FTB is required by law to protect the confidentiality of tax return information and taxpayers' privacy. Taxpayers have shown their concern about the importance of protecting their data. For instance, identity theft has become a prominent issue for many Californians. NetFile provides taxpayers the option of a direct, confidential connection to their government to e-file their returns.

FTB's Chief Information Security Officer, the Office of Privacy and Information Security, the Employee Relations and Worksite Security Bureau, and the Disclosure Office are tasked with overseeing FTB's privacy, security, and disclosure protection efforts, which include measures to protect, detect, and react. They are responsible to and work closely with FTB senior management and the executive officer to develop and implement privacy and security measures.

FTB follows a "Defense in Depth" strategy,<sup>25</sup> whereby FTB relies on multiple layers to resist all classes of attacks.

FTB staff place the highest importance on the security of confidential information. Measures are all-encompassing and include physical security of facilities and information technology equipment as well as securing paper and electronic data from any internal or external attacks. All information received, maintained, or generated by FTB, regardless of whether that data resides on paper or is electronically stored, is considered confidential unless it is specifically made public by law. FTB has established policies and procedures pursuant to Government Code section

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<sup>25</sup> For a discussion of this model, see the article: *Defense in Depth, A Practical Strategy for Achieving Information Assurance in Today's Highly Networked Environments*, The National Security Agency Website ([www.nsa.gov](http://www.nsa.gov))

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11019.9<sup>26</sup>, requiring all departments and agencies of the State of California to enact and maintain a permanent policy, in adherence with the Information Practices Act of 1977 (Civil Code section 1798 et seq.). FTB strictly enforces all laws and policies regarding the security of confidential information.

### ***B. Employees***

Each year employees certify to the receipt and their understanding of FTB's confidentiality policy and agree to monitoring of any activity involving computer access to confidential information. Employees are tested as to disclosure rules and certify to completion of the training. Employees will certify that they understand and will adhere to the FTB's information security policies, procedures and industry best practices. Supervisors discuss these policies with staff individually on a yearly basis. The annual training is meant to further emphasize the importance FTB places on taxpayer privacy and trust, and to further FTB's commitment to protect that trust relationship.

Effective July 1, 2003, a new law (AB 700) requires FTB to notify any taxpayer whose records have been accessed and used inappropriately. This requirement further exposes a violator to civil action by the taxpayer, in addition to administrative adverse action by the FTB.

### ***C. Technology***

FTB uses a combination of IT security technologies that include devices that have been configured to protect all information from unauthorized viewing or corruption, by either internal or external sources. Specifically, routers, firewalls, switches, protection against malicious code, and intrusion detection devices have been configured to shield FTB's confidential information.

For example, border routers have been configured to reject network traffic that appears to be malicious or would violate standard network routing rules. Firewalls are in place that employ application, protocol, and anti-hacking technologies to protect our e-commerce and FTB enterprise network from system compromise. FTB uses Network and host based Intrusion Detection systems (IDS) to audit, alert, and respond to hostile network and system attacks. All Web-based systems that host sensitive and confidential information have been configured to use IRS and State of California approved encryption certificates and protocols. FTB uses the industry standard Secure Sockets Layer (SSL) protocol with a 128-bit key length to ensure a secure connection between the taxpayer's computer and FTB's Internet applications. Additionally, FTB Internet-facing systems are scanned, monitored, and logged on a continuous basis to look for vulnerabilities, anomalous behavior, or hostile attacks.

Additional security measures are in place within the NetFile application, such as authentication of the taxpayer accessing the application (e.g., ensuring a valid social security number (SSN) and customer service number (CSN) combination, lock-out after too many unsuccessful attempts, etc.), masking CSN data upon entry, deleting taxpayer data upon logout, timing-out the application after 20 minutes of inactivity and deleting data, and scanning the application for reliability and security strength and security vulnerabilities.

Only return information submitted by a taxpayer as part of their return is relevant to FTB's mission of collecting the proper amount of tax revenue "in a manner warranting the highest degree of public confidence in our integrity, efficiency and fairness." FTB does not consider or

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<sup>26</sup> See Attachment 6: *Government Code section 11019.9.*

## NetFile Report Franchise Tax Board

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process preliminary return information; only the final data as submitted by the NetFile user is processed.

### ***D. Operations***

FTB's privacy and security policies are readily available to staff and the public through FTB's Intranet and Internet Websites.

Each time employees log into any FTB computer system, they are reminded of and accept the terms of authorized use.

## **X. Discussion and Recommendation for Action**

### ***A. Discussion***

Based on efforts made by both the private sector and government, it is apparent that there is agreement that "free e-file" should be made available to at least some taxpayers. There is not agreement on "how" to make free e-file available. Should government provide free direct e-file programs to all taxpayers?

Over the past few years, three free e-file models have emerged.

1.     Citizen-to-government e-file  
      This is government-sponsored free e-file. The taxpayer's return is transmitted directly to government.
2.     Free File Alliance  
      This is private sector-sponsored free e-file. First, the taxpayer's return is transmitted to a commercial e-file provider and then the return is transmitted to government.<sup>27</sup>  
  
      The Free File Alliance opened the door to e-file to more taxpayers than ever before. Industry and the IRS work together to promote the program and its benefits.
3.     Memorandum of Agreement Program  
      This program features agreements between the private sector and government regarding private sector free e-file offers. Government prominently features the free e-file offers on its Website. This program provides taxpayers access to various commercial free e-file offers on the government Website.

As cited in the Department of the Treasury, Final Audit Report, the IRS chose the Free File Alliance model versus developing their own free e-file program due to time and resource shortages. In contrast, when the three-member Board directed FTB staff to develop a free e-file program, FTB staff was able to build upon a decade of foundational e-commerce projects, thus enabling the efficient and effective deployment of the NetFile program.

Additionally, FTB works with the private sector to feature their free e-file offers on the FTB Website through the Memorandum of Agreement Program.

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<sup>27</sup> In some cases, some providers collect certain taxpayer data from the tax return.

**NetFile Report**  
**Franchise Tax Board**

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**B.     *Recommendation for Action***

There are several actions that can be taken regarding FTB's NetFile program. Following is an overview of those actions, in order of FTB staff preference.

1.     *Status quo*  
FTB would proceed with the NetFile program as previously directed. FTB would continue its Memorandum of Agreement Program, thus providing the private sector the opportunity to feature their free e-file offers on the FTB Website.
2.     *Limit future NetFile enhancements to a form-based, fillable and e-filable forms*  
This would entail filling the form out online (with automatic math and tax look-up), and e-filing to FTB upon completion. FTB would continue its Memorandum of Agreement Program, thus providing the private sector the opportunity to feature their free e-file offers on the FTB Website.
3.     *Discontinue further expansion and enhancements for the NetFile program*  
FTB would limit the NetFile target audience to those taxpayers who are currently eligible. FTB would not add significant enhancements to the program. FTB would continue its Memorandum of Agreement Program, thus providing the private sector the opportunity to feature their free e-file offers on the FTB Website.
4.     *Discontinue the NetFile program and establish a Free File Alliance*  
FTB would discontinue the NetFile program for the 2004 process year. FTB would begin the process to establish a Free File Alliance.

FTB staff recommends # 1: *Status quo, free, direct, citizen-to-government e-file for all taxpayers.*

The following table shows an overview of the pros and cons associated with each potential action.

**NetFile Report**  
**Franchise Tax Board**

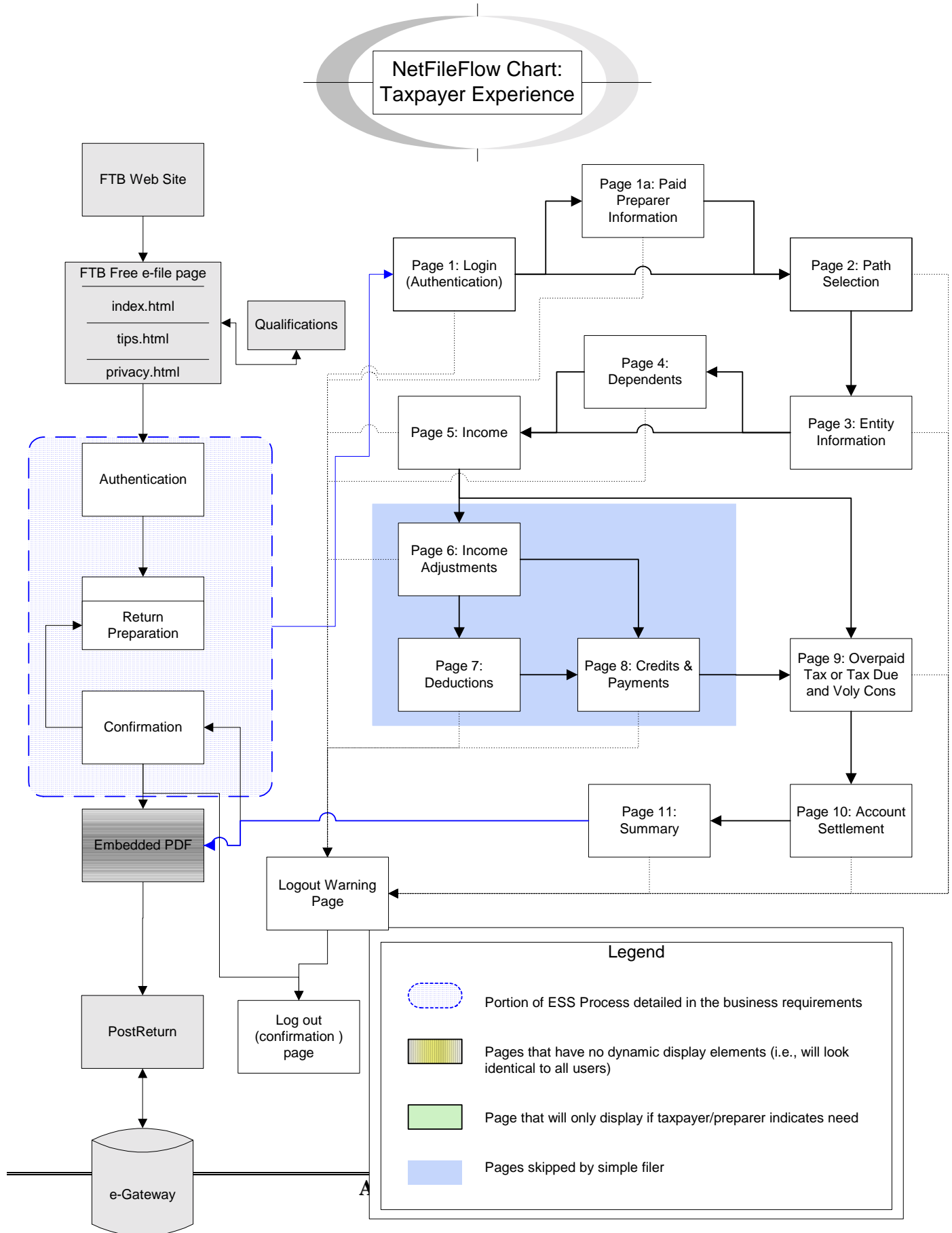
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Potential Actions	Pros	Cons
1. Status Quo – Previous Direction. Keep MOA Program.	<ul style="list-style-type: none"> <li>A. Consistent with previous direction</li> <li>B. Continues to offer all taxpayers the choice of free, simple, citizen-to-government e-filing</li> <li>C. Allows State to recover sunk costs</li> <li>D. Maintains successful MOA program</li> </ul>	<ul style="list-style-type: none"> <li>A. Issues of competition with Industry remain</li> <li>B. Industry may pull all free offerings</li> </ul>
2. Retain current NetFile; limit future enhancements to fillable, e-filable forms. Keep MOA Program.	<ul style="list-style-type: none"> <li>A. Continues to offer taxpayers choice</li> <li>B. Limits future costs</li> <li>C. Allows State to recover sunk costs</li> <li>D. Enhancements will still provide an e-file format that covers all eligible filers</li> <li>E. Maintains successful MOA program</li> </ul>	<ul style="list-style-type: none"> <li>A. Departs from previous board direction</li> <li>B. Limits ease-of-use functions (forms-based is less user friendly)</li> <li>C. Limited issues of competition with Industry remain</li> <li>D. Industry may pull all free offerings</li> </ul>
3. Retain current NetFile; stop further development. Keep MOA Program.	<ul style="list-style-type: none"> <li>A. Offers choice to majority of taxpayers (simplest returns)</li> <li>B. Stops future one-time expenditures</li> <li>C. Allows State to recover sunk costs</li> <li>D. Maintains successful MOA program</li> <li>E. Leaves market segments open to Industry</li> <li>F. State spends only maintenance costs going forward.</li> </ul>	<ul style="list-style-type: none"> <li>A. Departs from previous board direction</li> <li>B. Will not reach all eligible filers</li> <li>C. Limited issues of competition with industry remain</li> <li>D. Time and resources used to add Child and Dependents Care Credit lost</li> <li>E. Industry may pull all free offerings</li> </ul>
4. Take down NetFile; establish Free File Alliance. Discontinue MOA Program.	<ul style="list-style-type: none"> <li>A. Meets Industry objectives on non-competition</li> <li>B. Maintains emphasis of e-file growth and free e-file</li> <li>C. State spends no money for NetFile going forward</li> </ul>	<ul style="list-style-type: none"> <li>A. Reverses previous board direction</li> <li>B. Removes free, citizen-to-government choice for taxpayers</li> <li>C. NetFile investment wasted; could create negative perceptions in tight budget times</li> <li>D. Commercial privacy issues still persist</li> <li>E. Given mixed results of federal Free File Alliance, it may not be any better than current MOA program</li> <li>F. Cost to administer Free File Alliance program unknown</li> </ul>

## **Attachments**

- Attachment 1:**        **NetFile Flow Chart: Taxpayer Experience**
- Attachment 2:**        **Representative Screen Shots from the NetFile Program**
- Attachment 3:**        **Letter from Senator John L. Burton**
- Attachment 4:**        **Final Report, 2003 NetFile Survey, August 2003**
- Attachment 5:**        **Private Sector Model Costing Detail**
- Attachment 6:**        **Government Code 11010.0**
- Attachment 7:**        *FTB Pub. 7700, Information Security Requirements for Employees  
with Access to Confidential Information*
- Attachment 8:**        **FTB 7809, Confidentially Statement**
- Attachment 9:**        **FTB Website Screen Shots**
- Attachment 10:**       **Department of the Treasury, Final Audit Report-Improvements Are  
Needed to Ensure Individual Taxpayers Have an Easy, No-Cost  
Option to e-file Their Tax Returns**
- Attachment 11:**       **Other States: Free Internet e-file and Free File Alliance**
- Attachment 12:**       **Request for Input List**
- Attachment 13:**       **Letter and Questions Requesting Input**
- Attachment 14:**       **Input from Respondents**
-

## NetFile Report Franchise Tax Board

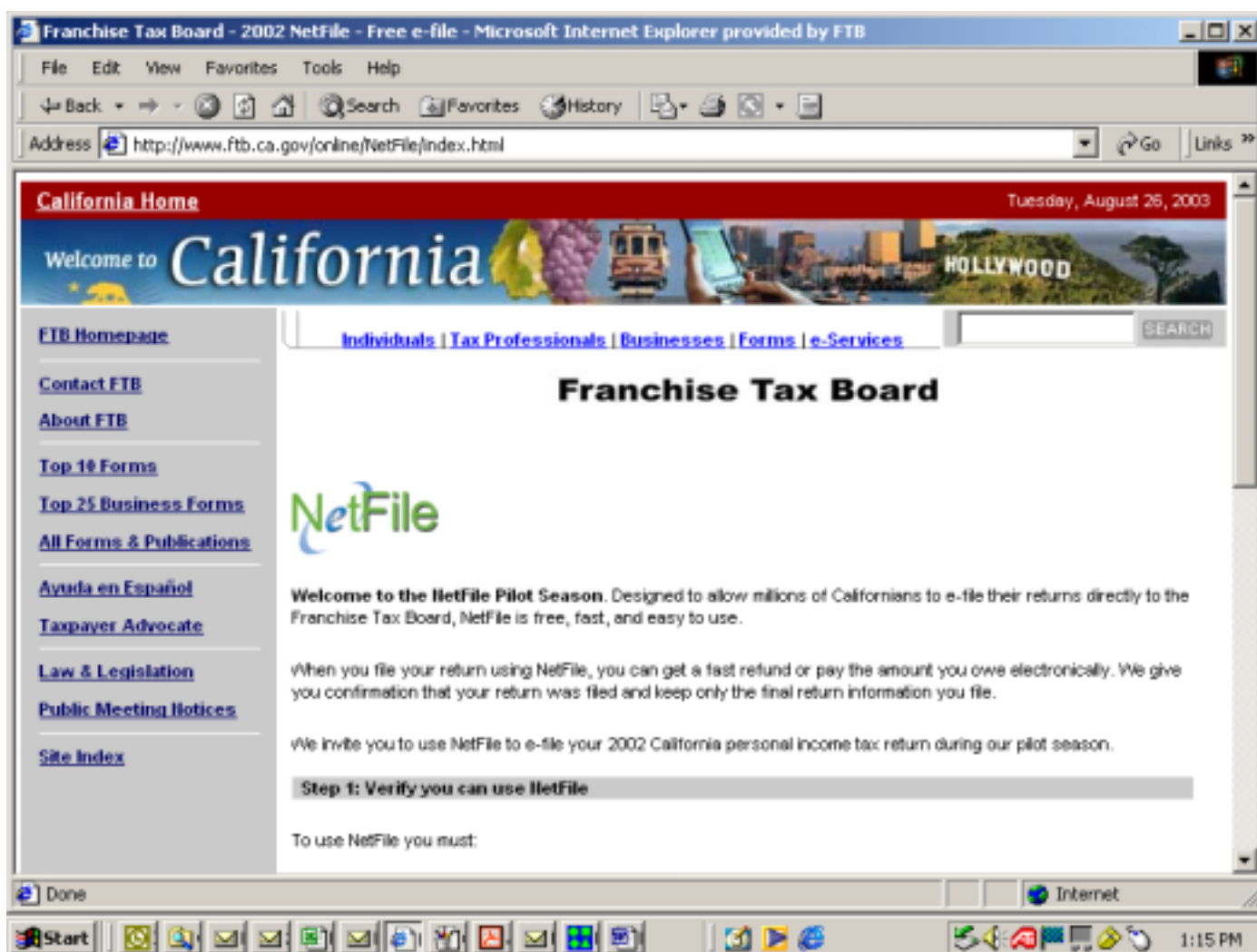




## NetFile Report Franchise Tax Board

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### ATTACHMENT 2: Representative Screen Shots from the NetFile Program



## NetFile Report Franchise Tax Board

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### Logon Screen

The screenshot shows a web browser window titled "Franchise Tax Board - 2002 NetFile - Getting Started - Microsoft Internet Explorer provided by FTB". The address bar shows the URL "https://webdev.ftb.ca.gov/netfile/Login.asp". The page has a red header bar with the text "2002 NetFile - Getting Started".

**Step 1: Identification Numbers**



Enter your social security number and customer service number (CSN) below. To proceed with NetFile, both numbers must match our records.



If you are married filing jointly, both you and your spouse must enter this information.

	Social Security Number (9 digits, no spaces or dashes)	Customer Service Number (4 digits)
Taxpayer	<input type="text" value="400001341"/>	<input type="text" value="XXXX"/>
Spouse (if married filing jointly)	<input type="text"/>	<input type="text"/>

**Step 2: Filing Status**

Select a **filing status** for your California return.\*

☒ Single  ☐ Married Filing Jointly 

☐ Married Filing Separately  ☐ Head of Household 

The browser's status bar shows "Done" and "Internet". The Windows taskbar at the bottom includes the Start button, several open application icons (P., C., N., 2., B., F., U., D.), and a system clock showing 1:04 PM.

## NetFile Report Franchise Tax Board

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Filing Needs (A No answers determines that the user need to follow the complete path)


The screenshot shows a web browser window titled "Franchise Tax Board - 2002 NetFile - Filing Needs - Microsoft Internet Explorer provided by FTB". The address bar shows the URL "https://webdev.ftb.ca.gov/netfile/path.asp". The page has a red header with the text "2002 NetFile - Filing Needs". Below the header, there is an important notice: "IMPORTANT! Do NOT use your browser's back button. Use the back button at the bottom of each page." This is followed by an explanatory paragraph: "By indicating your filing needs below, we will be able to customize your NetFile experience. You can still use Netfile to e-file your return if you select 'No.'" The main section is titled "Does this describe you?" and contains three numbered questions with radio button options for "Yes" and "No".

**2002 NetFile - Filing Needs**

**IMPORTANT! Do NOT** use your browser's back button.  
Use the back button at the bottom of each page.

By indicating your filing needs below, we will be able to customize your NetFile experience. You can still use Netfile to e-file your return if you select "No."

**Does this describe you?**

1. You received all of your 2002 income from any combination of:
  - California wages, salaries, tips
  - Unemployment compensation
  - Taxable interest
2. Your only 2002 tax payments were:
  - Withholding reported on Form W-2
3. You want to take the standard deduction, rather than itemizing your deductions. 

Yes ☒ No ☐

## NetFile Report Franchise Tax Board

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### Entity Information

Franchise Tax Board - 2002 NetFile - Name & Address - Microsoft Internet Explorer provided by FTB

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print

Address <https://webdev.ftb.ca.gov/netfile/Entity.asp> Go Links

**2002 NetFile - Name & Address**

Name & Address	Income	Tax	Refund or Payment	Return Summary
----------------	--------	-----	-------------------	----------------

**IMPORTANT!** Do NOT use your browser's back button.  
Use the back button at the bottom of each page.

**Step 1: Personal information**

**You**

Social Security Number

First Name

Middle Initial

Last Name

Suffix (e.g., Sr, Jr, III)

My parent, or someone else, can claim me as a dependent on his or her tax return ☐

Blind - Visually impaired ☐

Senior - 65 or older ☐

Done Internet

Start P... C... N... 2... B... F... U... D... 1:06 PM

## NetFile Report Franchise Tax Board

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### Dependents

Franchise Tax Board - 2002 NetFile - Dependents - Microsoft Internet Explorer provided by FTB

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print

Address <https://webdev.ftb.ca.gov/netfile/Dependents.asp> Go Links

### 2002 NetFile - Dependents

Name & Address	Income	Tax	Refund or Payment	Return Summary
----------------	--------	-----	-------------------	----------------

**IMPORTANT!** Do **NOT** use your browser's back button.  
Use the back button at the bottom of each page.

Please list the name and relationship of each of your dependents. Do not include yourself or your spouse. ?

Name	Relationship
Mary *	Daughter *
Jonathon *	Son *

If you need to change the number of dependents, enter the correct number here  and click .

[Log Out](#)

Done Internet

Start [Taskbar Icons] 1:26 PM

## NetFile Report Franchise Tax Board

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### Income Information

Franchise Tax Board - 2002 NetFile - Income - Microsoft Internet Explorer provided by FTB

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print

Address <https://webdev.ftb.ca.gov/netfile/income.asp> Go Links

### 2002 NetFile - Income

Name & Address	Income	Tax	Refund or Payment	Return Summary
----------------	--------	-----	-------------------	----------------

**IMPORTANT!** Do **NOT** use your browser's back button.  
Use the back button at the bottom of each page.

Enter the following information for each Form W-2, 1099-INT, and 1099-G you received for 2002.

#### Form W-2

Employee's SSN (box d)	Employer ID (box b)	State Wages (box 16)	California State Tax (box 17)
1. <input type="text" value="400001341"/>	<input type="text" value="987654321"/>	<input type="text" value="12505"/>	<input type="text" value="114"/>

To change the number of lines displayed enter the new number here  and click .

#### Form 1099-INT

Taxable interest (Form 1099-Int, box 1)

Done Internet

Start P... C... N... 2... B... F... U... D... 1:07 PM

## NetFile Report Franchise Tax Board

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### Tax Subtotal (Overpaid, Balance Due, Zero Balance, make voluntary contributions)

Franchise Tax Board - 2002 NetFile - Tax - Microsoft Internet Explorer provided by FTB

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print

Address <https://webdev.ftb.ca.gov/netfile/taxsubtotal.asp> Go Links

### 2002 - NetFile - Tax

Name & Address	Income	Tax	Refund or Payment	Return Summary
----------------	--------	-----	-------------------	----------------

**IMPORTANT!** Do **NOT** use your browser's back button.  
Use the back button at the bottom of each page.

#### Overpaid Tax

Based on the information you provided, you have an **overpaid tax** of \$62.

Amount from your overpaid tax you would like applied to your 2003 estimated tax: \$

**Any amount you apply reduces the amount of your refund.**

#### Voluntary Contributions

You may make contributions to any of the funds listed below. **Any amount you contribute reduces your refund.** You cannot change the amount you contributed after you file your return.

Alzheimer's Disease/Related Disorders Fund	<input type="text" value="2"/>
California Fund for Senior Citizens	<input type="text" value="5"/>
Rare and Endangered Species Preservation Program	<input type="text" value="5"/>
State Children's Trust Fund for the Prevention of	<input type="text"/>

Done Internet

Start P. C. N. 2. B. F. U. D. 1:07 PM

## NetFile Report Franchise Tax Board

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Settle Account (Refund or Balance Due or Zero Balance Due, provide EFT, DDR info)

The screenshot shows a web browser window titled "Franchise Tax Board - 2002 NetFile - Refund or Payment - Microsoft Internet Explorer provided by FTB". The address bar shows the URL "https://webdev.ftb.ca.gov/netfile/Settle.asp". The page has a red header with the text "2002 NetFile - Refund or Payment". Below the header is a navigation bar with five tabs: "Name & Address", "Income", "Tax", "Refund or Payment" (which is highlighted), and "Return Summary".

Below the navigation bar, there is a warning message: "IMPORTANT! Do NOT use your browser's back button. Use the back button at the bottom of each page."

The main content area contains the following text:

Based on the information you provided and your voluntary contributions, if any, you have a **refund** of \$40.

You can have your refund deposited directly into your bank account in less than seven days. If you do not want your refund directly deposited, we will mail a check to the address you provided on the Name & Address page.

Do you want your refund deposited directly into your account? ☒ Yes ☐ No

Provide the following information so we may deposit your refund directly in to your account.

Routing number

Account number

Account type ☒ Checking ☐ Savings

At the bottom of the form is a "Continue" button.

The browser's status bar at the bottom shows "Done", "Internet", and the time "1:08 PM". The taskbar at the very bottom shows various application icons including Start, P., C., N., 2., B., F., F., U., D., and a system tray with icons for network, volume, and power.



## NetFile Report Franchise Tax Board

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### Return Summary (Summary of data entered and calculated)

Franchise Tax Board - 2002 NetFile - Return Summary - Microsoft Internet Explorer provided by FTB

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print View Source

Address <https://webdev.ftb.ca.gov/netfile/summary.asp> Go Links

### 2002 NetFile - Return Summary

Name & Address	Income	Tax	Refund or Payment	Return Summary
----------------	--------	-----	-------------------	----------------

**IMPORTANT!** Do **NOT** use your browser's back button.  
Use the back button at the bottom of each page.

Below is a summary of your 2002 California Resident Income Tax Return. **Your return has not yet been filed.** Please review the information you've provided before you e-file your return. You may want to print this page for your reference.

If you need to make a change, use the back button on the bottom of this page to get to the page you want to update. Once you make the changes, you **must** click the "Continue" button at the bottom of each page to return to this page. This will ensure that your changes are properly calculated.

Name & Address	Test NetFiler 123456 Taxing Lane Taxeville, CA 95608
Social Security Number	400001341
Number of Dependents	0
Filing Status	Single
Federal Adjusted Gross Income (Wages + taxable interest + unemployment compensation)	\$12,505
California Income Adjustments - Subtractions	\$0

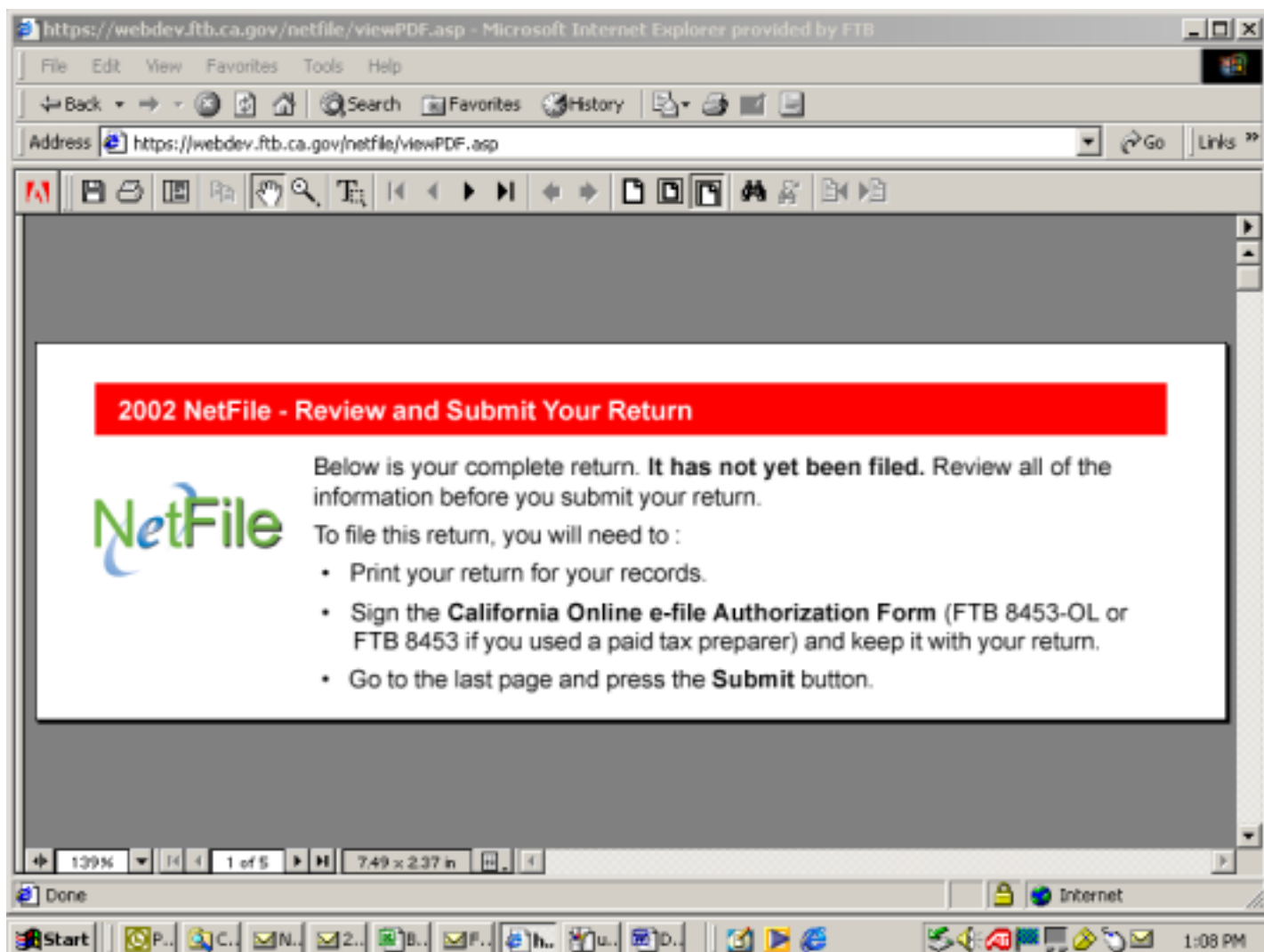
Done Internet

Start P. C. N. 2. B. F. F. U. D. 1:08 PM

## NetFile Report Franchise Tax Board

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**View PDF Version of Return (Instructions, Completed 540 Return, 8453, applicable Statements, Submit Button)**



## NetFile Report Franchise Tax Board

View PDF Version of Return (Instructions, Completed 540 Return, 8453, applicable Statements Submit Button) - Continued

https://webdev.ftb.ca.gov/netfile/viewPDF.asp - Microsoft Internet Explorer provided by FTB

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History Print

Address https://webdev.ftb.ca.gov/netfile/viewPDF.asp Go Links

**DO NOT MAIL THIS FORM TO FTB**

**California Resident  
Income Tax Return 2002** FCBM  
**540**

Fiscal year filers only: Enter month of year end: month \_\_\_\_\_ year 2003.

**Step 1** **Test** **NetFiler** PMA Code    **P**

Place label here or print

Name and Address **123456 Taxing Lane** Apt. no.    PMA no.    **AC**

**Taxeville** State **CA** ZIP Code **95608** **R**

**Step 1a** Your social security number **400-00-1341** Spouse's social security number **IMPORTANT:**  
Your social security number is required. **RP**

**Step 2** **1** ☒ Single

**Filing Status** **2** ☐ Married filing jointly (even if only one spouse had income)

**3** ☐ Married filing separately. Enter spouse's social security number above and full name here \_\_\_\_\_

**4** ☐ Head of household (with qualifying person). STOP See instructions.

**5** ☐ Qualifying widow(er) with dependent child. Enter year spouse died \_\_\_\_\_

**Step 3** **6** if your parent (or someone else) can claim you (or your spouse, if married) as a dependent on his or her tax return, even if he or she chooses not to, fill in this circle ☐ **6** ☐

**Exemptions** For line 7, line 8, line 9, and line 10: Multiply the amount you enter in the box by the pre-printed dollar amount for that line.

123% 2 of 5 8.5 x 11 in

Done Internet

Start P. C. N. 2. B. F. H. U. D. 1:09 PM

## ATTACHMENT 3: Letter from Senator John L. Burton

SACRAMENTO OFFICE  
STATE CAPITOL, ROOM 205  
SACRAMENTO, CA 95814-4906  
(916) 445-1412

DISTRICT OFFICES  
455 GOLDEN GATE AVENUE  
SUITE 14800  
SAN FRANCISCO, CA 94102  
(415) 557-1300

MARIN CIVIC CENTER  
3501 CIVIC CENTER DRIVE  
ROOM 425  
SAN RAFAEL, CA 94903  
(415) 479-6612

## California State Senate

JOHN L. BURTON  
PRESIDENT PRO TEMPORE

COMMITTEES:  
RULES  
CHAIRMAN



November 15, 2002

Hon. Kathleen Connell  
California State Controller  
300 Capitol Mall, Suite 1850  
Sacramento, CA 95814

Hon. John Chiang  
Member, Board of Equalization  
450 N Street  
Sacramento, CA 95814

Mr. Tim Gage  
Director, Department of Finance  
State Capitol, Room 1145  
Sacramento, CA 95814

Dear Members of the Franchise Tax Board:

I understand that the subject of e-filing for California taxpayers will come up again at an FTB meeting scheduled for November 26<sup>th</sup>. At this meeting, I trust that any action taken by the board will be based on the primary consideration of what is best for Californians who want to e-file.

As you know, what we have now is far short of what Californians deserve. Documents and testimony presented at previous meetings on this subject showed that California is behind many other states in facilitating online tax filing. Harley Duncan, executive director of the Federation of Tax Administrators, had earlier predicted that the California e-filing system "will be cumbersome," and he noted that, "Other states have tried to make the online tax experience more like the online shopping experience."

I have been encouraged by some of the more recent developments with respect to this matter. The Senate, late this summer, rejected legislation that would have placed into California code the language of the so-called "MOU" that tied the hands of the FTB and severely restricted the ability of the agency to serve Californian online filers.

In addition, your action as FTB members at the October board meeting to begin to allow taxpayer access to tax tables and arithmetic calculation functions was certainly a positive step. However, taxpayers are still required to download the forms, fill in the forms offline, and then go


back online to submit the forms. All other types of computer transactions (like making a purchase through Amazon.com, joining an organization, etc.) can be done by Californians in one step online. In addition, online filing is limited to the 5402EZ form, whereas other states allow access to many other forms.

If it were left up to some, the state's e-filing website would be little more than an advertising platform for commercial companies seeking taxpayer business. (It appears that, at the federal level, the Department of Treasury may unfortunately be adopting this approach through what it calls its "Consortium" program.) While I have no serious objection to limited web links to commercial sites, I do not believe the state should abdicate its responsibilities to provide the services Californians would expect.

The Web continues to evolve and expand, and we do not know what preferences our citizens will develop in the future. It seems to me that we ought to maximize rather than minimize the number of options available to taxpayers. Some will chose to rely on the basic state service (or may not be able to afford anything else). Others will chose private providers. But certainly, the state is not going to put the private tax-preparation software companies out of business. These companies undoubtedly will always have a corner on the market of providing tax advice to taxpayers, in addition to tax preparation.

I urge you to move forward now to enhance the state's online filing system. Other legislators and I are prepared to assist you in this effort.

Peace and Friendship,



JOHN L. BURTON  
President pro Tempore  
of the Senate

JLB:rd

# **FINAL REPORT**

*2003 NetFile Survey*

e-File Programs & Outreach Section

August 2003

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**Prepared by:**











Stakeholder Value Research Group  
Franchise Tax Board

## **EXECUTIVE SUMMARY**

FTB implemented NetFile Phase I as a pilot for the 2003 filing season. NetFile was made available to all 540 2EZ filers, most 540A filers, and some 540 filers. The service provides taxpayers with a free, easy, and direct-to-FTB way of filing their Personal Income Tax (PIT) returns. In order to collect data regarding taxpayers' experience with NetFile, a mail survey was administered. In April 2003 a total of 830 surveys were mailed out to a random sample of NetFile users. Two hundred and sixty-eight surveys were returned, representing a 33% response rate.

## **KEY FINDINGS**

Listed below are some of the key findings from the survey:

-  *Respondents were most likely to learn about NetFile on FTB's website.*
-  *Most NetFile users stated they chose to use the service because it is convenient, free and faster than paper filing.*
-  *The majority of respondents stated they would use NetFile again next year.*
-  *Survey respondents who had a refund or a zero balance return were significantly more likely than balance due respondents to state that they will use NetFile again next year.*
-  *Four-in-five respondents used NetFile from their home.*
-  *Approximately three-fourths of the respondents completed their returns in less than half of an hour.*
-  *Dial-up Internet connection was the most common type of Internet connection used to access NetFile. However, DSL and Cable Internet connections combined to account for half of the survey responses.*
-  *Almost two-thirds of the respondents e-filed their federal returns this year, while 30% filed paper returns.*
-  *Approximately three-in-five respondents that e-filed their federal return participated in the IRS free filing program.*
-  *Seventy percent of the respondents stated this was the first year they had e-filed their California tax return.*

**NetFile Survey**  
**August, 2003**

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<b>APPENDIX 6 – NetFile Users in the Southern California Coastal Region</b>	<b>30</b>



## **PROJECT BACKGROUND**

At the November 2002 Franchise Tax Board (FTB) meeting, the Board directed FTB staff to provide taxpayers with a secure, free, direct, online Internet filing option for the 2002 tax year filing season. This is in line with FTB's 2001-2005 Strategic Goal 4 that states, "Deliver efficient and high-quality business results."

FTB implemented NetFile Phase I on April 13, 2003. NetFile was released as a pilot for the 2003 filing season and was made available to all 540 2EZ filers, most 540A filers, and some 540 filers. The Internet application provides taxpayers with a free, easy, and direct-to-FTB way of filing their Personal Income Tax (PIT) returns. Features included the ability to calculate itemized deductions, make some adjustments to federal adjusted gross income, and apply estimated tax payments. As of April 21, 2003, FTB had received 11,492 returns through the NetFile service.

NetFile Phase II (target implementation 9/24/2003) will include planned enhancements and the incorporation of additional attributes of the 540A and 540 tax forms.

The e-File Programs and Outreach Section (EPOS) requested assistance from the Stakeholder Value Research Group (SVRG) to conduct a mail survey of taxpayers who used the NetFile service.

## **SURVEY OBJECTIVES**

The objective of the survey was to collect data regarding taxpayers' experience with NetFile. Specifically, the study was designed to:

- ❖ Determine how taxpayers learned about NetFile.
- ❖ Identify why taxpayers chose to use NetFile.
- ❖ Identify where the taxpayer used NetFile (home vs. work computer).
- ❖ Determine the NetFile user's e-file history.
- ❖ Identify the type of Internet connection used.
- ❖ Assess the average length of time it took taxpayers to complete their tax return using NetFile.

## **RESEARCH METHOD**

The project was conducted as a self-administered mail survey with a random sample of NetFile users. The surveys were mailed with a cover letter describing the study and a postage-paid self-addressed envelope.

On April 1, 2003, the survey was mailed to 830 randomly selected NetFile users. A follow-up reminder postcard was sent to survey participants a week and a half after the survey was mailed.

## **THE SURVEY POPULATION AND SAMPLE DESIGN**

The population for this study is all possible survey responses from the sampling frame of NetFile users who used the service between April 13 and May 16, 2003.

The stratified sampling plan used for this survey divided the sampling frame into two groups according to whether they had a refund/zero balance return or a balance due return. A simple random sample was selected from each group. A total of 830 surveys were mailed. The sample size for each group of the sample design is presented in Table 1.

**Table 1**  
**The Stratified Design**

<b>POPULATION</b>	<b>SAMPLE SIZE</b>
Refund/Zero Balance Return	430
Balance Due Return	400
<b>Total</b>	<b>830</b>

## **QUESTIONNAIRE**

The questionnaire (see Appendix 1) was developed by EPOS and revised by SVRG. The questionnaire consisted of 10 dichotomous choice or multiple choice questions designed to elicit information regarding the taxpayers' experience with NetFile. The last question was open-ended and provided the participant an opportunity to give additional written comments.

## **CAVEATS**

The results of this research should be used with the usual caution that is applied with any research. Even though the study designers used their best professional expertise to construct the best possible survey, the possibility of error still exists. Furthermore, there is always the possibility of sampling error when a census is not taken. The Stakeholder Value Research Group cannot ensure that the survey respondents are demographically and geographically representative of all NetFile users. The NetFile users who chose to respond (33%) may be different from those who opted not to reply (67%). Accordingly, the reader assumes sole responsibility for the use of this information.

## PROJECT RESULTS & CONCLUSIONS

### Survey Response

The total number of NetFile users who responded was 268. The overall response rate was 33%. Table 2 shows the total number of respondents and percentages of each of the stratified groups surveyed.

**Table 2**  
**The Survey Response Rate**

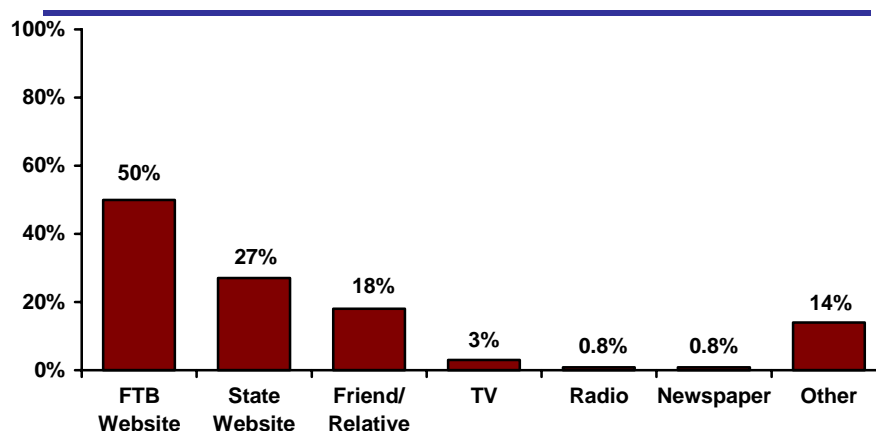
POPULATION	SAMPLE SIZE	RETURNED SURVEYS	RESPONSE RATE
Refund/Zero Balance Return	428	125	29.0%
Balance Due Return	393	143	36.4%
<b>TOTAL</b>	821 <sup>1</sup>	268	32.6%

### Survey Findings

*Respondents were most likely to learn about NetFile on FTB's website.*

The first question asked respondents to indicate how they learned about NetFile. Respondents were provided with six multiple-choice responses as well as an "other" response. The respondents were instructed to select all of the responses that apply. Half of the respondents (50%) mentioned they learned about NetFile on FTB's website ([www.ftb.ca.gov](http://www.ftb.ca.gov)). Slightly more than a quarter of the respondents (27%) indicated they learned about NetFile on the State of California's ([www.ca.gov](http://www.ca.gov)) website. Six respondents left this question blank. All of the response categories and the corresponding frequencies are shown in Graph 1.

**Graph 1**  
**How Learned about NetFile (N=262)**



<sup>1</sup> Nine surveys were returned undeliverable by the post office.

Fourteen percent of respondents wrote in “other” responses of how they learned about NetFile. Listed below are a few of the most common written-in responses. A full listing of the written-in responses can be found in Appendix 2.

- CPA
- Tax Booklet
- Internet search
- IRS website
- Mail



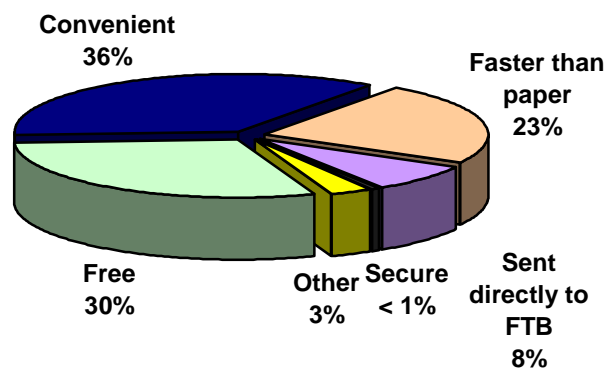
*Most NetFile users stated they chose to use the service because it is convenient, free and faster than paper filing.*

One of the objectives of the survey was to identify the benefits that attracted taxpayers to use NetFile in order to help market the new service in the future. When asked for the main reason they chose to use NetFile, three reasons were mentioned the most frequently: 1. Filing my return is convenient (36%), 2. Filing my return is free (30%), and 3. It's faster than paper filing (23%).

Thirteen percent of the respondents checked more than one reason in response to this question, even though the questionnaire instructed the respondent to select only one response. An item-response error resulted when those respondents selected more than one answer to the question. The results are shown in Graph 2, removing those respondents who chose more than one response.

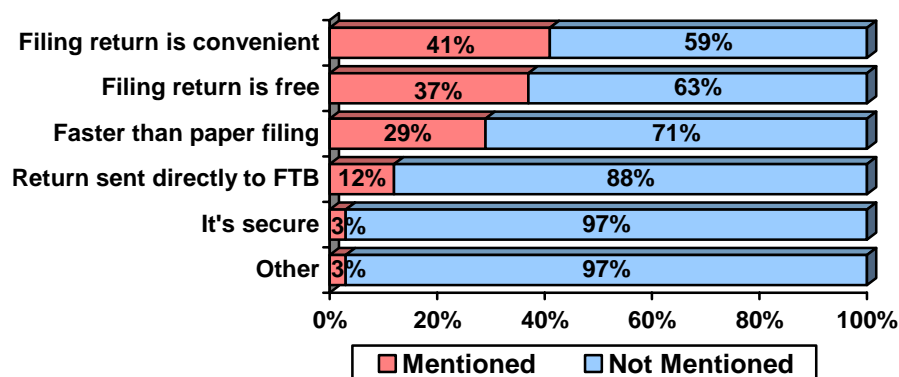
**Graph 2**  
**Main Reason for Choosing to Use NetFile (N=227)**

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Graph 3 shows all of the survey responses to this question, including those respondents who chose more than one response. Each response was treated as though it were an individual question and the “mentioned” or “not mentioned” response to each question totals 100%.

**Graph 3**  
**Reason(s) for Choosing to Use NetFile (N=261)**

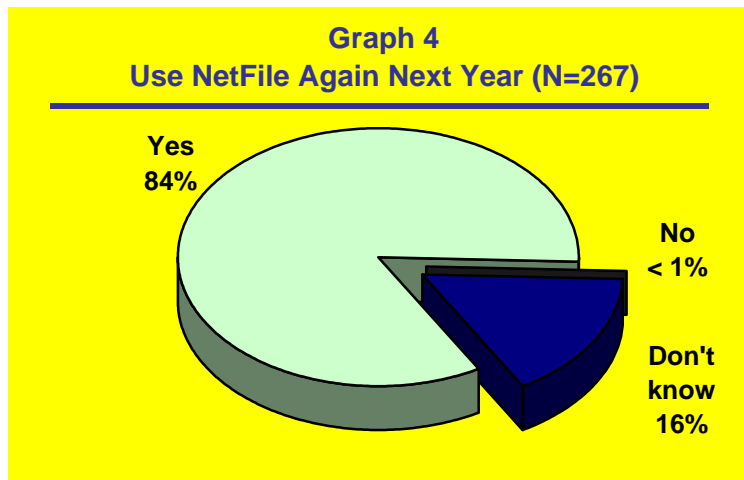


Listed below are all of the “other” reasons written-in by respondents for why they chose to use NetFile:

- Accuracy
- Could not print out the 540 form
- Couldn't use TeleFile
- Deadline for filing
- Hard to get paper forms
- I am out of state
- I was able to pay with a credit card
- It is better than the phone
- Too late to mail my return

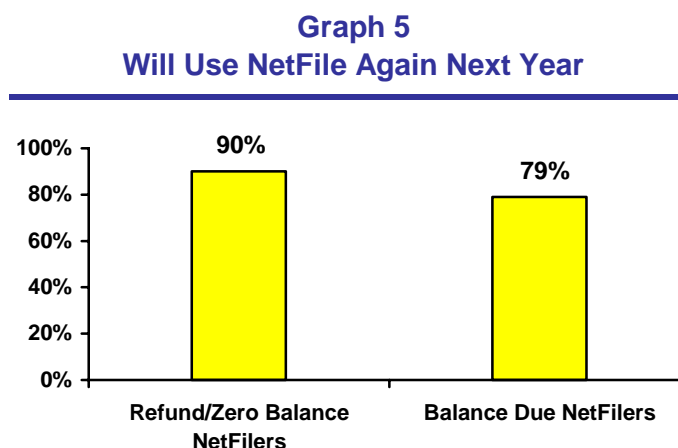
*The majority of respondents stated they would use NetFile again next year.*

Question three asked respondents, “Will you use NetFile again next year?” Eighty-four percent responded affirmatively, while only one respondent (0.4%) said “no”. Sixteen percent were undecided.



*Respondents who had a refund or a zero balance return were significantly more likely than respondents who had a balance due return to state they will use NetFile again next year.*

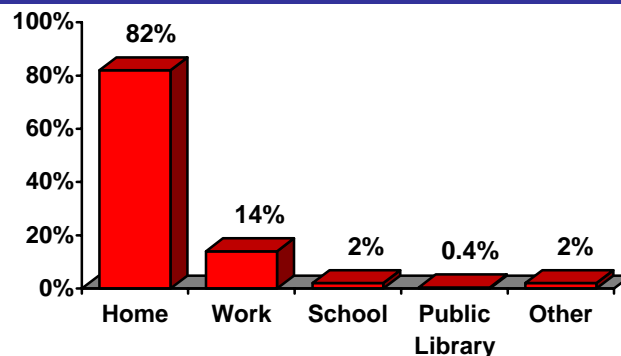
Nine-in-ten respondents (90%) who had a refund or a zero balance return stated they will use NetFile again next year. The remaining 10% were undecided. However, only 79% of the respondents with a balance due return responded affirmatively to this question, with one respondent stating (0.7%) they will not use NetFile again next year, and 20% were unsure.



*Four-in-five respondents used NetFile from their home.*


Next the survey respondents were asked to identify where they used NetFile. The purpose of this question was to identify potential areas to market NetFile and to ensure appropriate privacy and security measures are communicated to taxpayers using the service in public places. The majority (82%) of survey respondents used NetFile from their home.

**Graph 6**  
**Location Where Used NetFile (N=268)**



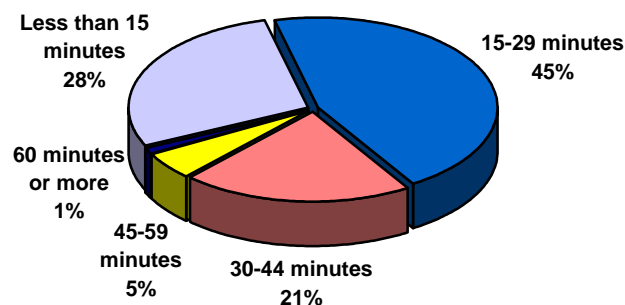
Five respondents stated they used NetFile from a location that was not listed on the survey. Their written-in responses are listed below.

- Daughter-in-law's house
- Home and work
- Kinko's
- Relative's
- Tax Accountant

 *Approximately three-fourths of the respondents completed their returns in less than half of an hour.*

In order to determine if it will be necessary to extend the timeout period and to evaluate the flow of the service, the survey respondents were asked to identify how long it took them to complete their return using NetFile. Excluding the undecided responses, over a quarter of the respondents (28%) stated it took them less than 15 minutes to complete their returns using NetFile. Forty-five percent said it took them 15-29 minutes and 21% said it took them 30-44 minutes. Collectively, this means that 73% of the respondents completed their returns in less than 30 minutes and 94% completed their returns in less than 45 minutes.

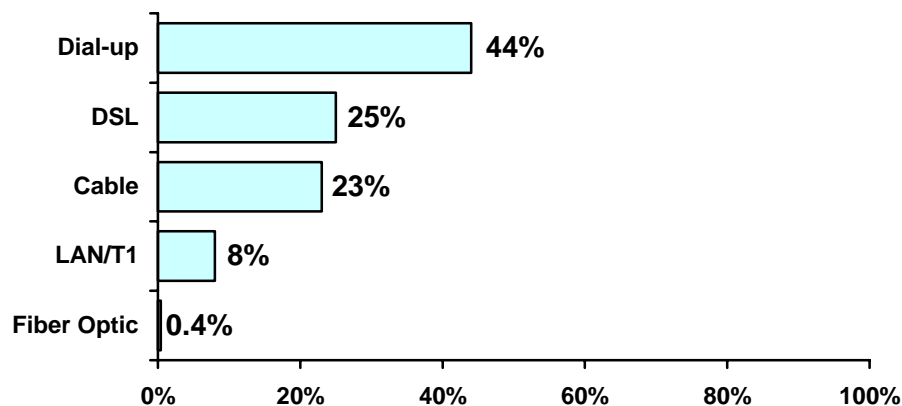
**Graph 7**  
**Length of Time to Complete Return Using NetFile (N=258)**



*Dial-up Internet connection was the most common type of Internet connection used to access NetFile. However, DSL and Cable Internet connections combined to account for half of the survey responses.*

The respondents were next asked to identify the type of Internet connection they used to access NetFile. The responses to this question will help to make adjustments and decisions regarding the loading time of the service and bandwidth issues. Graph 8 shows that dial-up (44%) was the most frequently mentioned type of Internet connection followed by DSL (25%) and Cable (23%). The graph excludes the other responses and the undecided responses.

**Graph 8**  
**Type of Internet Connection Used (N=248)**



Four respondents selected the “other” category, and wrote in the following comments:

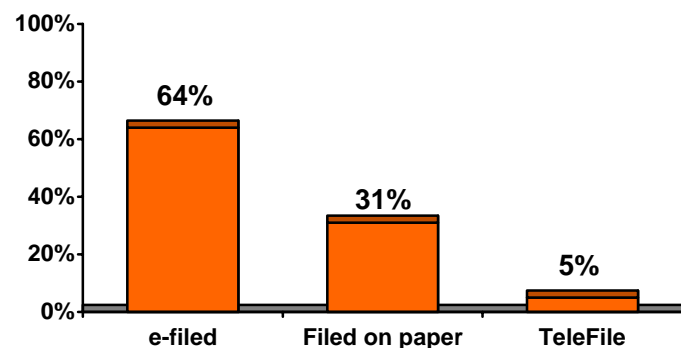
- AOL
- Cable and LAN/T1
- Don't know - basic Internet connection.
- Ethernet



- 🔗 *Almost two-thirds of the respondents e-filed their federal returns this year, while 30% filed paper returns.*

As illustrated in Graph 9, of the respondents that had previously filed their federal returns, 64% e-filed their federal return, 31% filed a paper return and 5% used TeleFile. Not included in the graph are six respondents, four left the question blank, one was undecided how they were going to file their federal return and one that had not previously filed, but indicated they were going to e-file.

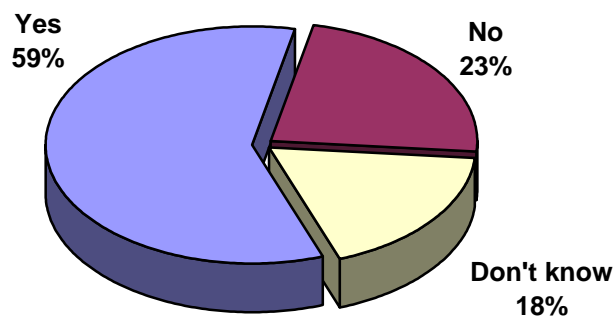
**Graph 9**  
**How Filed Federal Return (N=262)**



- 🔗 *Approximately three-in-five respondents that e-filed their federal return participated in the IRS free filing program.*

The respondents that had already e-filed their federal returns were asked if they had participated in the IRS free filing program. Almost 60% responded affirmatively to this question, while 23% responded “no” and 18% were unsure.

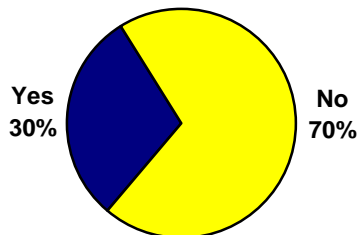
**Graph 10**  
**Participated in the IRS Free Filing Program (N=167)**



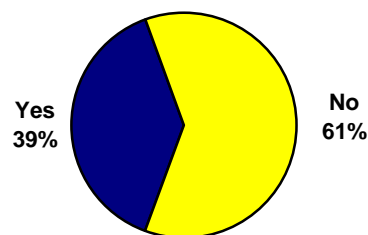
- 🔑 *Seventy percent of the respondents stated this was the first year they had e-filed their California tax return.*

The next two questions were asked to determine the respondents' e-filing history. The survey first asked, "Before this year, had you ever e-filed your California return?" The second question asked if they had ever e-filed their federal return. Seventy percent of the respondents stated they had never e-filed their California tax return before. Somewhat fewer respondents (61%) said they had never e-filed their Federal tax return in the past. The results are shown in Graphs 11 and 12, excluding the undecided responses.

**Graph 11**  
**Previously e-File California Return (N=259)**



**Graph 12**  
**Previously e-File Federal Return (N=258)**



### **Additional Comments**

At the end of the survey respondents were given the opportunity to provide additional comments. Below are a few illustrative comments grouped into the following categories: praise, suggestions, difficulties and other comments. A full listing of the comments can be found in Appendix 2.

#### ***Praise***

- *"A great service! Worked quickly even at "the last minute"! I highly recommend it to anyone with a relatively simple return - for others, it's at least worth a try!"*
- *"Awesome program! You guys did a great job with this project. I look forward to using it again next year. Make sure that it stays secure."*
- *"Great service! Thanks! Love the fact that my return came so quickly (much faster than friends who filed paper returns)."*
- *"I hope you have this available next year too."*
- *"I loved it! It was quick, easy, convenient, and FREE! Why would you use paper?"*
- *"I was extremely relieved when I found out I could file over the Internet. It's great! Keep it up!"*

- *"It is very simple and doesn't take any time at all. No paperwork hassles and definitely no standing in line at the post office!"*
- *"It's fast, convenient, and allows you to feel safe about inputting information."*
- *"Thank you for this service. I always second-guess my work, but you did it for me - thank you."*
- *"The NetFile website was user friendly thus encouraging me to file earlier for 2003! Thank you!"*
- *"Very easy and self-explanatory. Would use again and recommend to everyone."*

### **Suggestions**

- *"Accessing pin # could be easier took too long to get."*
- *"Adopt more options for added usage. Seemed too limited with all available possibilities."*
- *"Get rid of Adobe Acrobat."*
- *"Instructions confusing @ very end of process. "You must \_\_\_\_\_..." Hard to tell if you successfully completed steps. On-screen feedback would help."*
- *"It took me a bit longer to file as I needed an I.D., number supposedly mailed to me on a postcard (I don't remember receiving it). Could not retrieve the number via the Internet - had to phone. Try some other way of identifying taxpayers!"*
- *"It wasn't clear that you could only declare your misc. income if said no to the question about wages and tips."*
- *"It would be helpful if I could save, exit the program, then return later to complete."*
- *The multiple web sites that were offered to e-file was very confusing. Also, time limits on the sites need to be longer.*
- *"There should be a way to review/print after it is submitted. Submitting online is good but the site is poorly designed."*

### **Difficulties**

- *"Did not accept my automatic withdrawal info (which was correct) and I got fined for late payment."*
- *"Either the program made a mistake or I overlooked something. I had to submit an amended return because I was SURE that the e-file program said I could itemize deductions but after I proceeded past the first couple of steps I was not allowed to itemize."*
- *"I apparently gave the wrong routing number and was rejected by bank - so I mailed a check."*
- *"I was a little confused as to which one I should file, I started filing the wrong one."*

- *“Your site kept kicking me off - saying I had timed out, which I had not. I had to file 3 times before it was accepted. It only took me approx. 8 minutes to fill out the e-file form. But had to file 3 times - Not cool.”*
- *“Very convenient, except at the last minute (4-15-03) it was hard to get onto the website.”*

### Other Comments

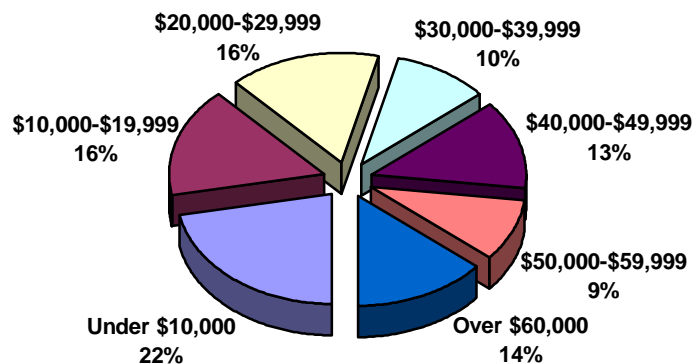
- *"e-Filing should be free for everybody so that more people will choose it over paper filing."*
- *"I would have filed federal online but it's not free. I already had done my taxes but they want you to use a service."*
- *"It's the way all of us should file."*
- *"I will start filing my federal return electronically as soon as I can do that directly too."*
- *"Please continue to make the service free!"*

### Survey Respondents

Below is a brief analysis of the survey respondents' demographic and filing information. Graph 13 shows that over half of the respondents had an adjusted gross income under \$30,000. The median AGI was \$28,652.

**Graph 13**  
**Adjusted Gross Income (N=268)**

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Of the 268 total respondents, 53% had a balance due return, 42% had a refund return, and the remaining 4% had a zero balance return<sup>2</sup>. The balance due respondents had a median AGI of \$38,369. The refund/zero balance respondents had a median AGI of \$18,702. The median balance due amount was \$82.00, with over half of the respondents having a balance due amount of less than \$100. The median refund amount was \$108, with 44% of respondents having a refund amount of less than \$100. However, 18% of the respondents had a refund amount of \$500 or more.

Appendix 3 is a map of California counties showing the counties with the highest survey response. Over 20% of the survey responses were received from Los Angeles County. Twelve percent of the survey respondents lived in San Diego and 7% were from Orange County. For a

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<sup>2</sup> For this study, the zero balance filers were combined with the refund population.

full listing of all of the counties in California and the survey response see Appendix 4.

### **All NetFile Users**

As of May 21, 2003, FTB had received 11,579 returns through the NetFile service. Table 3 shows the total AGI amount of all NetFile users. Three-fourths of the NetFile users had an AGI amount of less than \$40,000. The median AGI amount was \$23,158.

**Table 3**  
**All NetFile Users AGI Amount**

TOTAL AGI AMOUNT	#	%
Under \$10,000	2916	25.2%
\$10,000 to \$19,999	2275	19.6%
\$20,000 to \$29,999	1960	16.9%
\$30,000 to \$39,999	1553	13.4%
\$40,000 to \$49,999	1061	9.2%
\$50,000 to \$59,999	846	7.3%
Over \$60,000	968	8.4%
TOTAL	11579	100.0%

Of the total number of NetFile returns, a quarter (25%) of the returns were refund returns, 7% were zero balance returns and 68% were refund returns. The median balance due amount was \$83.00. Over half (54%) of the NetFilers with a balance due owed less than \$100, while 12% had a balance due of \$500 or more. The median refund amount was \$104, with almost half (48%) receiving a refund of less than \$100. Fourteen percent received a refund of \$500 or more.

Ninety-seven percent of the total NetFile returns were filed within California. Appendix five is a map of California split into nine regions. The map indicates the percentage of NetFilers in each region. The Southern California Coastal region had the greatest number of NetFilers (41%), followed by the Bay Area region with 26%. For a full listing of the counties within each region and the number of NetFilers within each county see Appendix 4. Appendix six is a map of the Southern California Coastal Region and highlights the cities with the greatest number of NetFilers.

Three percent of the NetFile users were from outside of California. Seven NetFile returns were filed from military bases without an identifiable state. Returns were filed from 43 different states, including California. The states with the most NetFile returns filed included Texas, Florida and Arizona.

## APPENDIX 1 – NetFile Questionnaire

June 4, 2003

Dear [INSERT TAXPAYER FULL NAME],

Thank you for choosing our new **NetFile** service to file your 2003 Personal Income Tax Return. We would like a few minutes of your time to answer the following questions about your **NetFile** filing experience.

We plan to use your comments to make improvements to **NetFile** and to identify ways we can inform all taxpayers about this new, free service. Your name was randomly selected from a sample of individuals who used **NetFile** between April 13 and May 16, 2003. For the results to truly represent the opinions of those who use **NetFile**, it is important that everyone who receives the questionnaire complete and return it.

Please be assured that we keep all information you provide strictly confidential. Your participation in this study is voluntary and your name will not be connected with your answers in any way.

Once you have completed the survey, return it to us using the enclosed self-addressed stamped envelope. If you have any questions or need help completing the questionnaire, contact **Christie Svoboda of the Stakeholder Value Research Unit at (916) 845-5063**. We plan to post the survey results on our website ([www.ftb.ca.gov](http://www.ftb.ca.gov)) later this year.

Thank you in advance for your time and participation.

Sincerely,

Christie Svoboda  
Research Analyst

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### 1. How did you learn about NetFile? (Select ALL that apply)

- ☐ Friend/Relative/Co-worker
- ☐ Newspaper
- ☐ Television
- ☐ Radio
- ☐ Franchise Tax Board's website ([www.ftb.ca.gov](http://www.ftb.ca.gov))
- ☐ State of California's website ([www.ca.gov](http://www.ca.gov))
- ☐ Other, please specify \_\_\_\_\_

### 2. Why did you choose to use NetFile? (Select ALL that apply)

- ☐ My return is sent DIRECTLY to FTB.
- ☐ Filing my return is FREE.
- ☐ Filing my return is CONVENIENT.
- ☐ It's FASTER than paper filing.
- ☐ It's SECURE.
- ☐ Other, please specify \_\_\_\_\_

**3. Would you use NetFile again next year? (Select ONE)**

- ☐ Yes  
☐ No  
☐ Don't know

**4. From what location did you use NetFile? (Select ONE)**

- ☐ Home  
☐ Work  
☐ School  
☐ Public library  
☐ Other, please specify \_\_\_\_\_

**5. How long did it take you to complete your return using NetFile? (Select ONE)**

- ☐ Less than 15 minutes  
☐ 15-29 minutes  
☐ 30-44 minutes  
☐ 45-59 minutes  
☐ 60 minutes or more  
☐ Don't know

**6. What type of Internet connection did you use to access NetFile? (Select ONE)**

- ☐ Dial-up  
☐ DSL  
☐ Cable  
☐ Fiber Optic  
☐ LAN/T1  
☐ Other, please specify \_\_\_\_\_  
☐ Don't know

**7. Did you e-file your Federal return this year? (Select ONE)**

- ☐ Yes *[go to question 7a]*  
☐ No *[skip to question 8]*  
☐ I have not filed it yet, but I plan to e-file. *[skip to question 8]*  
☐ I have not filed it yet, but I plan to file on paper. *[skip to question 8]*  
☐ I don't know how I will file my federal return. *[skip to question 8]*

**7a. If you e-filed your federal return this year, did you participate in the free filing program provided by the IRS? (Select ONE)**

- ☐ Yes  
☐ No  
☐ Don't know

**8. Before this year, had you ever e-filed your:**

- |                      | Yes                      | No                       | Don't Know               |
|----------------------|--------------------------|--------------------------|--------------------------|
| a. California return | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Federal return    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**9. If you have any additional comments, please provide them in the space below:**

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## **APPENDIX 2 – Respondent Comments**

### **QUESTION 1: How did you learn about NetFile?**

#### **OTHER RESPONSES**

- Library.
- Tax Booklet.
- Tax booklet.
- Can't remember.
- Federal return website: Shows filing state return was available to me.
- IRS website.
- Used previously.
- Mail.
- Brochure.
- Mailing.
- Tax form.
- 2002 Tax Booklet (got website).
- Telefile booklet.
- CPA.
- CPA.
- Google search for CA tax.
- Tax Booklet.
- TeleFile booklet had e-mail/web address.
- Tax booklet that came in the mail.
- IRS Site.
- Send to me.
- By accident.
- Tax Booklet.
- Tax booklet.
- Google search.
- Mailer.
- Internet search.
- Rec'd package in mail.
- Received booklet.
- Postcard for FTB.
- Surfing the net.
- Form 540 and book.
- I work for FTB & I was part of a pilot.
- From last year.
- On the form.
- I tried to TeleFile, and was directed to the website.
- From IRS mailing booklet.

**QUESTION 2: What was the main reason you chose to use NetFile?**

**OTHER RESPONSES**

- It is better than the phone.
- Hard to get paper forms.
- Accuracy
- Could not print out the 540 form.
- Couldn't use TeleFile.
- Deadline for filing.
- I am out of state.
- I was able to pay with a credit card.
- Too late to mail my return.

**QUESTION 4: From what location did you use NetFile?**

**OTHER RESPONSES**

- Kinko's
- Home and Work
- Tax Accountant
- Relative's
- Daughter-in-law's house

**QUESTION 6: What type of Internet connection did you use to access NetFile?**

**OTHER RESPONSES**

- AOL
- Cable and LAN/T1
- Don't know - basic Internet connection.
- Ethernet

**QUESTION 9: Additional comments**

- 1. There should be a way to review/print after it is submitted. Submitting online is good but the site is poorly designed.
- A great service! Worked quickly even at "the last minute"! I highly recommend it to anyone with a relatively simple return - for others, it's at least worth a try!
- Accessing pin # could be easier took too long to get.
- Adopt more options for added usage. Seemed too limited with all available possibilities.
- Awesome program! You guys did a great job with this project. I look forward to using it again next year. Make sure that it stays secure.
- Can't find free filing program.
- Definitely a great tool for California taxpayers. This should expand to process our federal taxes with one online form.
- Did not accept my automatic withdrawal info (which was correct) and I got fined for late payment.
- E-File is great, as long as it is free and (EX) it will be my choice to keep using.

### **QUESTION 9: Additional comments**

- e-Filing should be free for everybody so that more people will choose it over paper filing.
- Either the program made a mistake or I overlooked something. I had to submit an amended return because I was SURE that the e-file program said I could itemize deductions but after I proceeded past the first couple of steps I was not allowed to itemize.
- Everything went quick and was easy - Thank you.
- Free is key.
- FYI - We are still waiting for our extension. Thank you for this service, it is very convenient.
- Get rid of Adobe Acrobat.
- Great for last-minute filing!
- Great job!
- Great program!
- Great service!
- Great service! Thanks! Love the fact that my return came so quickly (much faster than friends who filed paper returns).
- Great service. Very convenient. Keep it going.
- I apparently gave the wrong routing number and was rejected by bank - so I mailed a check.
- I hope you have this available next year too.
- I love the fact that it is easy and free!
- I love the fact that the NetFile service is free no matter what your yearly income level. With the federal it is based on an income guideline. If you make too much it is no longer free.
- I love the rapidness of the service.
- I loved it was free, fast and easy. Please don't remove the system.
- I loved it! It was quick, easy, convenient, and FREE! Why would you use paper?
- I prefer filing my taxes on the web to filing by paper, but my strongest preference is to file by phone. I filed my federal taxes by phone in less than 10 minutes.
- I really like this NetFile, it's faster than paper filing, easy, excellent! I hope everybody use this. Anyways, Thanks NetFile!
- I telefiled my federal returns.
- I telefiled my federal return.
- I think the e-file or computer filing is great. I can get my taxes done a lot earlier than before.
- I was a little confused as to which one I should file, I started filing the wrong one.
- I was extremely relieved when I found out I could file over the Internet. It's great! Keep it up!
- I was one of hundreds who waited until the last minute this was very convenient! Thanks.
- I will start filing my federal return electronically as soon as I can do that directly too.
- I would have filed federal online but it's not free. I already had done my taxes but they want you to use a service.
- I'm glad I was able to due my taxes on line but I'm not truly confident that I do them correctly? People say I should never have to pay because of my situation but I always do. Any help or suggestion?

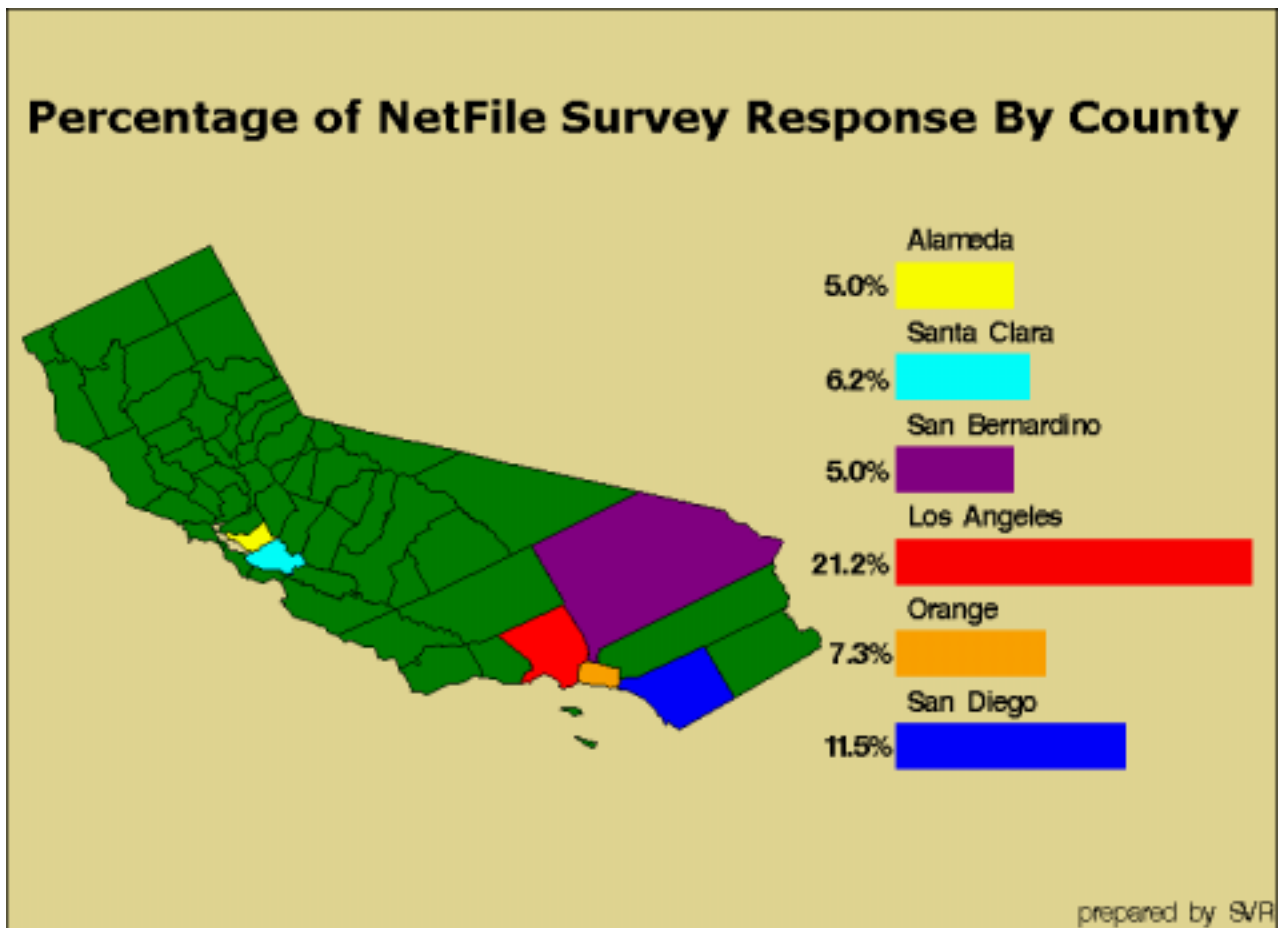
### **QUESTION 9: Additional comments**

- Instructions confusing @ very end of process. "You must \_\_\_\_\_..." Hard to tell if you successfully completed steps. On-screen feedback would help.
- It is very simple and doesn't take any time at all. No paperwork hassles and definitely no standing in line at the post office!
- It took me a bit longer to file as I needed an I.D., number supposedly mailed to me on a postcard (I don't remember receiving it). Could not retrieve the number via the Internet - had to phone. Try some other way of identifying taxpayers!
- It was a great service - fast, efficient and free! Thank you!
- It was easy and the refund was quick. If I had to pay I don't know how difficult it would be.
- It was so easy and fast - Thank you!
- It wasn't clear that you could only declare your misc. income if said no to the question about wages and tips.
- It would be helpful if I could save, exit the program, then return later to complete.
- It's the way all of us should file.
- It's fast, convenient, allows you to feel safe about inputting information.
- Keep it free and keep it simple and informative. Make sure all capabilities are integrated! E-file is convenient for the individual and the state.
- Love e-file.
- NetFile is better than TurboTax & it's free.
- NetFile is very easy to use.
- Outstanding idea! Saves you/gov't money and me time and hassle of researching forms at library. Thanks David.
- Please continue to make the service free!
- Please send appropriate paperwork for next years e-file both.
- Pretty easy to use.
- Re: #8 e-filed and paper by tax preparer. Welcome to the electronic filing ago, FTB!!
- Tele-filed for the federal return.
- Telephone filing last year was much easier.
- Thank you for simplifying the process.
- Thank you for this service. I always second-guess my work, but you did it for me - thank you.
- Thank you for this service. It was convenient, fast, & best of all FREE! (You should suggest more advertising to the federal website people).
- Thank you.
- Thanks for providing an easy way with no stress filing. Thanks for making life easier. Sorry for the delay.
- Thanks!
- The Calif. e-File was different than the Calif. paper return and it made me nervous that I was filing correctly.
- The entire process could be done automatically, there is no need for filing. If interested, contact me.
- The multiple web sites that were offered to e-file was very confusing. Also, time limits on the sites need to be longer.
- The NetFile website was user friendly thus encouraging me to file earlier for 2003! Thank you!

**QUESTION 9: Additional comments**

- The past few years I telefiled my returns but I found e-file to be much faster and easier.
- Very convenient, except at the last minute (4-15-03) it was hard to get onto the website.
- Very easy and fast and free. I recommend it to everyone. I don't have a lot of free time with work and college, but e-file makes it so easy.
- Very easy and self-explanatory. Would use again and recommend to everyone.
- Work pretty good.
- Your site kept kicking me off - saying I had timed out, which I had not. I had to file 3 times before it was accepted. It only took me approx. 8 minutes to fill out the e-file form. But had to file 3 times - Not cool.

### APPENDIX 3 – NetFile Survey Response By County



#### APPENDIX 4 – Geographic Comparison by County of Survey Respondents vs. All NetFile Users

<b>Bay Area Region</b>				
	<i>Survey Respondents</i>		<i>All NetFile Users</i>	
Alameda	13	5.0%	618	5.3%
Contra Costa	9	3.5%	371	3.2%
Marin	2	0.8%	89	0.8%
Napa	2	0.8%	51	0.4%
San Francisco	10	3.8%	599	5.2%
San Mateo	7	2.7%	235	2.0%
Santa Clara	16	6.2%	664	5.7%
Solano	4	1.5%	131	1.1%
Sonoma	4	1.5%	200	1.7%
<b>TOTAL</b>	<b>67</b>	<b>25.8%</b>	<b>2958</b>	<b>25.5%</b>

<b>Central Coast Region</b>				
	<i>Survey Respondents</i>		<i>All NetFile Users</i>	
Monterey	4	1.5%	89	0.8%
San Benito	1	0.4%	9	0.1%
San Luis Obispo	2	0.8%	120	1.0%
Santa Barbara	0	0.0%	119	1.0%
Santa Cruz	5	1.9%	131	1.1%
<b>TOTAL</b>	<b>12</b>	<b>4.6%</b>	<b>468</b>	<b>4.0%</b>

<b>Central Valley North Region</b>				
	<i>Survey Respondents</i>		<i>All NetFile Users</i>	
Butte	2	0.8%	80	0.7%
Colusa	0	0.0%	8	0.1%
Glenn	0	0.0%	2	0.0%
Placer	5	1.9%	142	1.2%
Sacramento	15	5.8%	830	7.2%
Shasta	0	0.0%	62	0.5%
Sutter	0	0.0%	25	0.2%
Tehama	0	0.0%	9	0.1%
Yolo	2	0.8%	81	0.7%
Yuba	2	0.8%	23	0.2%
<b>TOTAL</b>	<b>26</b>	<b>10.0%</b>	<b>1262</b>	<b>10.9%</b>

<b>Central Valley South Region</b>				
	<i>Survey Respondents</i>		<i>All NetFile Users</i>	
Fresno	3	1.2%	206	1.8%
Kern	3	1.2%	101	0.9%
Kings	2	0.8%	28	0.2%
Madera	0	0.0%	17	0.1%
Merced	1	0.4%	42	0.4%
San Joaquin	3	1.2%	197	1.7%
Stanislaus	0	0.0%	150	1.3%
Tulare	1	0.4%	60	0.5%
<b>TOTAL</b>	<b>13</b>	<b>5.1%</b>	<b>801</b>	<b>6.9%</b>

<b>Coastal North Region</b>				
	<i>Survey Respondents</i>		<i>All NetFile Users</i>	
Del Norte	0	0.0%	5	0.0%
Humboldt	1	0.4%	66	0.6%
Lake	0	0.0%	14	0.1%
Mendocino	1	0.4%	25	0.2%
<b>TOTAL</b>	<b>2</b>	<b>0.8%</b>	<b>110</b>	<b>0.9%</b>

<b>Mountain North Region</b>				
	<i>Survey Respondents</i>		<i>All NetFile Users</i>	
Lassen	0	0.0%	6	0.1%
Modoc	0	0.0%	3	0.0%
Nevada	0	0.0%	40	0.3%
Plumas	0	0.0%	6	0.1%
Sierra	0	0.0%	1	0.0%
Siskiyou	0	0.0%	9	0.1%
Trinity	1	0.4%	5	0.0%
<b>TOTAL</b>	<b>1</b>	<b>0.4%</b>	<b>70</b>	<b>0.6%</b>

<b>Mountain South Region</b>				
	<i>Survey Respondents</i>		<i>All NetFile Users</i>	
Alpine	0	0.0%	1	0.0%
Amador	0	0.0%	13	0.1%
Calaveras	0	0.0%	16	0.1%
El Dorado	1	0.4%	60	0.5%
Inyo	0	0.0%	1	0.0%
Mariposa	0	0.0%	7	0.1%
Mono	0	0.0%	5	0.0%
Tuolumne	0	0.0%	17	0.1%
<b>TOTAL</b>	<b>1</b>	<b>0.4%</b>	<b>120</b>	<b>1.0%</b>

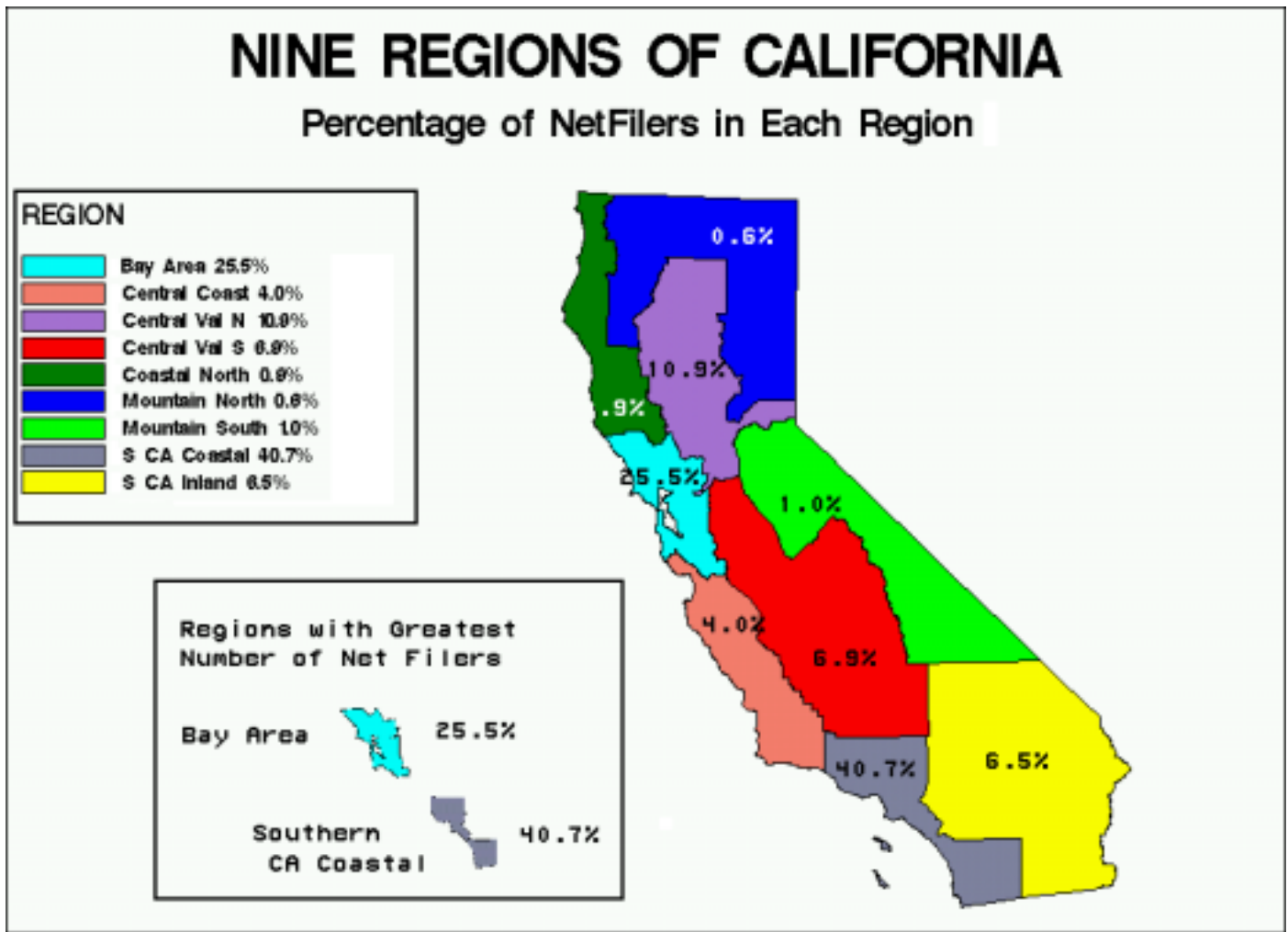


<b>Southern California Coastal Region</b>				
	<i>Survey Respondents</i>		<i>All NetFile Users</i>	
Los Angeles	55	21.2%	2192	18.9%
Orange	19	7.3%	946	8.2%
San Diego	30	11.5%	1310	11.3%
Ventura	8	3.1%	261	2.3%
<b>TOTAL</b>	<b>112</b>	<b>43.1%</b>	<b>4709</b>	<b>40.7%</b>

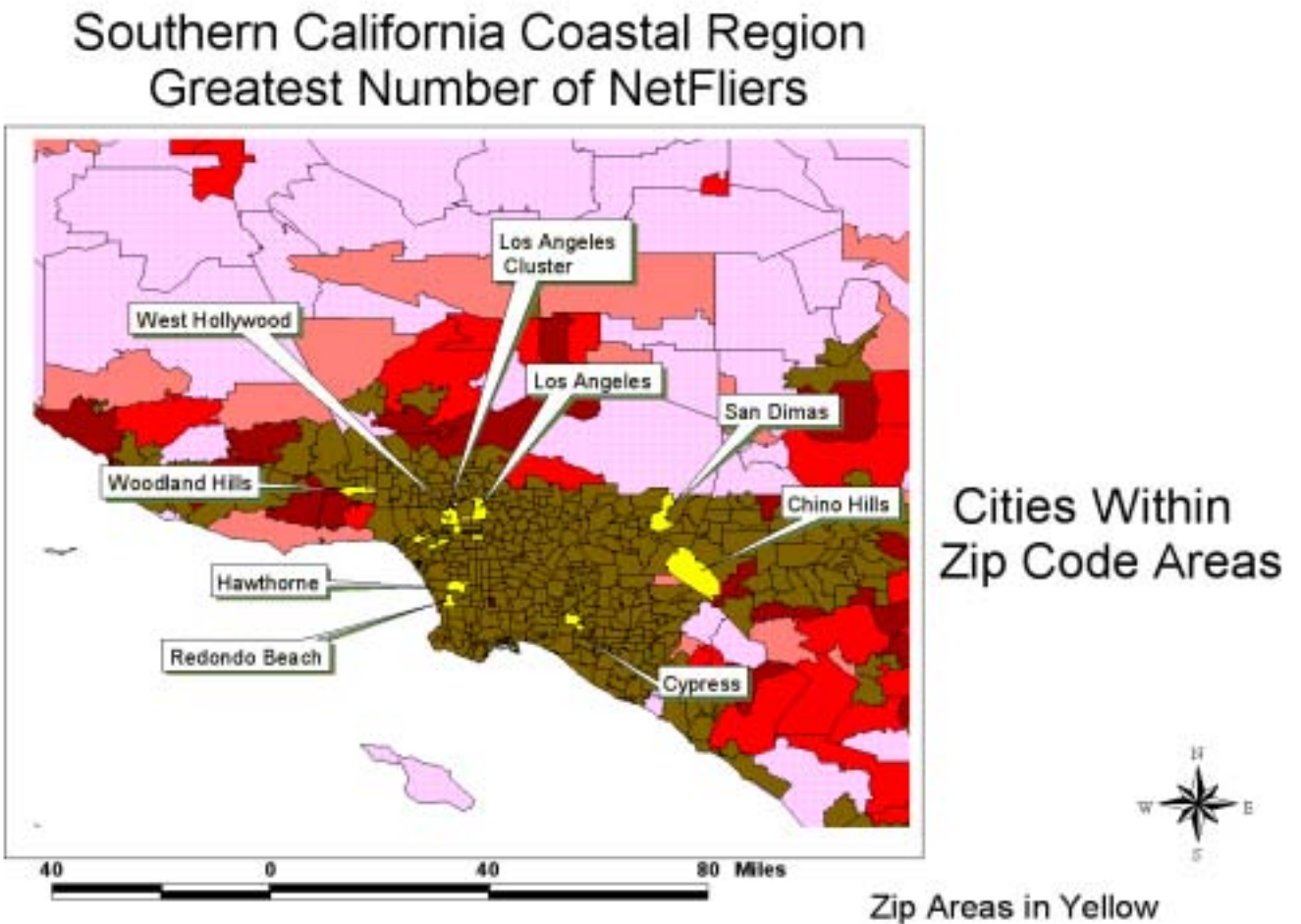
<b>Southern California Inland Region</b>				
	<i>Survey Respondents</i>		<i>All NetFile Users</i>	
Imperial	0	0.0%	17	0.1%
Riverside	14	5.4%	355	3.1%
San Bernardino	13	5.0%	386	3.3%
<b>TOTAL</b>	<b>27</b>	<b>10.4%</b>	<b>758</b>	<b>6.5%</b>

<b>Out of State</b>				
	<i>Survey Respondents</i>		<i>All NetFile Users</i>	
	<b>7</b>	<b>2.7%</b>	<b>323</b>	<b>2.8%</b>

## APPENDIX 5 – Percentage of NetFile Users in California by Region



## APPENDIX 6 – NetFile Users in the Southern California Coastal Region



# NetFile Report

## Franchise Tax Board

### ATTACHMENT 5 –Private Sector Costing Model

Major Cost Categories	Components of Cost	Examples of Costs to be Estimated	Year 1 Start-Up	Year 2 Maintenance	Year 2 Growth	Year 3 Maintenance	Year 3 Growth	Notes
<b>1 User Registration</b>								
	Obtaining Contact Information	Used if there is a problem, e.g. they need to resubmit something						
	Privacy Policies and Implementations	Create and post policies that allow taxpayers to know how their data will be used and to opt-in or out of such use Time spent engineering to prevent collection of personally identifiable information prohibited by law						
<b>2 User Interface for taxpayer data entry</b>								
	User authentication for returning users							
	User Interface	Time to design UI Usability Testing of UI						
	Programming	Start up creation - including requirements definition & documentation, design, development, unit testing Annual maintenance and feature enhancement						
	Quality Assurance testing	Review requirements & designs, create test plans, perform functional & error testing Major end-to-end system test before launch						
	Performance Testing	Expected user load, server capacity & response time Software and hardware infrastructure stability						

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## NetFile Report Franchise Tax Board

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### ATTACHMENT 5 – Private Sector Costing Model (continued)

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#### 3 Calculations

Programming Tax Law	
Start up creation or % analyst's time allocated to this	If analyst is doing for multiple uses, estimate % analyst's time allocated to this.
In season changes	
Annual maintenance and changes	E.g. If programs CA 540A for 3 uses, use 33%.
Quality Assurance testing	
Review requirements & designs, create test plans, perform functional & error testing	
Major end-to-end system test before launch	

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#### 4 E-filing

Programming	
Start up creation	
Annual maintenance and feature	
Quality Assurance testing	
Review requirements & designs, create test plans, perform functional & error testing	To estimate, look at the number of days in each test employee cost for the year.
Major end-to-end system test before	
Performance Testing	
Expected user load, server capacity & Software and hardware infrastructure	

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#### 5 Scalability

Software		One of most critical components of a Web-
Based upon your software design		
Network		
Based upon your hardware design.		
Servers		
How many concurrent users/server x Design time to scale for above, plus in case of greater use than anticipated.		If not built to scale, when hit will need to re-engineer

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# NetFile Report Franchise Tax Board

## ATTACHMENT 5 – Private Sector Costing Model (continued)

### 6 Infrastructure

Software	Design for usage on specific hardware,	
Network	Physical components themselves, plus implementation, debugging, and	
Servers	For capacity, additional volume, and	If using existing servers in each server used and of server (install,
Storage	Access for employees' in season Access for taxpayers' in season Secure storage and access for Secure storage and access for taxpayers'	E.g. In case of tax dispute in later years.

### 7 Security

Internal and External	System configuration so it:	Approximately 25% of engineering costs in private
	<ul style="list-style-type: none"> <li>- only 'talks' to authorized systems</li> <li>- uses 128bit encryption to solve for unauthorized outside searches inquiries and activities at multiple layers, such as web server, network, application server, database server, etc.</li> <li>- lock down protocols via routers</li> <li>- validate that data is sent in exact format</li> <li>- has designed protection internally from potential employee abuse and track usage by operations staff, and generate access reports for review by management</li> </ul>	E.g. 5402EZ only "talks" to e file system - no other
Testing	Create secure debugging capability in a structured, controlled environment 3 <sup>rd</sup> party physical security testing and 3 <sup>rd</sup> party data security testing and audits	

# NetFile Report Franchise Tax Board

## ATTACHMENT 5 – Private Sector Costing Model (continued)

### 8 Business Continuity Planning

		Duplicity in engineering of software, infrastructure, processes, decisions, load sharing between sites
Hardware	Based on your hardware needs.	
Software	Based on your software needs.	
Catostrophe	Fall Back – cold, warm or hot site	

### 9 Operations

Development of Procedures	Handle routine issues	Estimate time needed to
	Handle escalation issues	
Maintenance	Routine maintenance of software, servers,	Estimate staff time allocated
Escalation	Handling of escaled issues	Estimated staff time

### 10 Technical Support

Anticipated call volume based upon anticipated usage volume	Given FTB's call center fixed number of calls - this
Creation of training materials and policies and procedures to handle issues (e.g. how to deal with corrupt data or a log	you how many taxpayers many NOT being served
Training of staff to handle questions	
% of staff time spend handling questions	
% of call center infrastructure allocated to this	

### 11 Management

All levels	% managers time spent overseeing Engineering, QA, Tax Development, Marketing, Web Site, Call Center, Data	List managers with spent based on their varying
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NetFile Report  
Franchise Tax Board

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**ATTACHMENT 5 – Private Sector Costing Model (continued)**

1. User Registration

- Authentication process - All staff hours and the related operating expense and equipment (OEE)<sup>1</sup> to plan, develop, test and migrate this process to production. Per Industry's model, this portion of the cost would include obtaining contact information in order for the customer to be contacted after the return is filed in the instance there is a problem (prior to submission) or to come back and complete an incomplete return at a later time. The NetFile application does not allow the taxpayer to save data and return at a later time. The application either accepts or rejects the return immediately when the taxpayer submits the online return, so there is no need to retain their information to contact in case of problems with the e-filing transaction.
- Privacy policy – All staff hours and the related OEE to locate the privacy policy, plan the page, develop, test, and migrate the privacy page to production. FTB did not have to use many resources on this area as the current Privacy Policy and Privacy Policy Web page was leveraged.

2. User Interface (UI)

- User authentication for returning users – No time allotted for this category. The NetFile application does not allow users to save return data. The taxpayer can only submit or close the session (and lose all data entered).
- UI Design – All staff hours and the related OEE to design the UI including usability testing.
- Programming – All staff hours and the related OEE to define and document requirements, design, develop, test, and migrate the UI to production (including the display and printing of the tax form in a Portable Document Format (pdf)).
- Quality Assurance Testing – All staff hours and the related OEE to review requirements for UI, create test plans, and perform all testing (intermediary and final tests). Includes cost for purchasing Macintosh computers for testing purposes.
- Performance Testing<sup>2</sup> – A percentage of staff hours and the related OEE to test server capacity, response time, Software and hardware infrastructure stability given the expected user load.

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<sup>1</sup> OEE includes items defined by DOF for Budget Change Proposal (BCP) percentages. Including: Staff benefits; Branch and Departmental General Expenses; Minor equipment (dept.); printing; communications (dept.- telephone service); Software Maintenance-Dept (on-going cost); Training; Facilities (excluding rent/lease); PC's/Notebooks. Excludes managerial overhead.

<sup>2</sup> Performance testing is included in several categories in Industry's model. The hours used to test performance were split appropriately in each of those categories. Each category description indicates a "percentage" of the total hours used for performance testing of NetFile.

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**ATTACHMENT 5 – Private Sector Costing Model (continued)**

3. Calculations

- Programming Tax Law – All staff hours and the related OEE to create the web components to compute tax the taxpayers tax liability and credits based on information provided by the taxpayer. The hours include creating the programming requirements and programming.
- Quality Assurance testing – All staff hours and the related OEE to review the requirements and design for the calculation portion of NetFile, create test plans, and perform functional and error testing, including final complete test prior to migration to production.

4. E-filing

- Programming – All staff hours and the related OEE to make changes to FTB's existing e-file infrastructure to accommodate NetFile returns. *FTB leveraged the already present e-file infrastructure with minimal changes to accommodate NetFile.*
- Quality Assurance testing – All staff hours and the related OEE to review the required changes to e-file, create test plans, and perform functional and error testing (including final end-to-end test before migration to production)
- Performance testing – A percentage of staff hours and the related OEE to test server capacity, response time, Software and hardware infrastructure stability given the expected user load.

5. Scalability

- All staff hours and related OEE spent researching, analyzing, and providing a recommendation to senior management for the specific software, network, and server needs based on the NetFile application and expected demand.
- A percentage of staff hours and the related OEE to perform load testing for the expected demand.

6. Infrastructure

- Software – All staff hours and related OEE expended to research and purchase the necessary software for NetFile. The cost of the purchased software.
- Network – All staff hours and related OEE spent to identify any necessary changes to FTB's current Infrastructure, to debug and perform maintenance on the current infrastructure.

*FTB leveraged their current infrastructure for NetFile.* A cost amount was estimated for NetFile's use of the network based on the number of user sessions FTB experiences on [ftb.ca.gov](http://ftb.ca.gov), the number of IT personnel hours spent on maintaining the

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NetFile Report  
Franchise Tax Board

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**ATTACHMENT 5 – Private Sector Costing Model (continued)**

infrastructure, and the number of expected users of NetFile during the first three years.

- Servers – No costs were identified for the servers. *FTB is leveraging those servers previously purchased for other e-file and e-service related projects. The servers were already in place and necessary for other e-services FTB provides.*
- Storage – No costs were identified for storage. FTB does not maintain a separate database for NetFile returns. The data is stored the same as all other e-file and paper returns. No increase in storage space was necessary.

7. Security

- Internal and External - All staff hours and related OEE spent to identify any changes that were necessary to FTB's current Web security and hours attributable to maintenance on the current infrastructure related to security.

*FTB leveraged their current Web security measures for NetFile. A cost amount was estimated for NetFile's use of the IT resources devoted to Web security based on the number of user sessions FTB experiences on ftb.ca.gov, the number of personnel hours spent on web security, and the number of expected users of NetFile during the first three years.*

- Testing – All staff hours and related OEE expended on testing the effect of NetFile on FTB's Web security infrastructure.

8. Business Continuity Planning

- All staff hours and related OEE expended on researching, analyzing, recommending, and creating a catastrophe plan.

9. Operations

- Development of Procedures – All staff hours and related OEE used to create a change control/defect control process to identify potential issues with NetFile.
- Maintenance – A percentage of staff hours and related OEE directed at maintenance of software, servers, and databases.<sup>3</sup>
- Escalation – All staff hours and related OEE devoted to resolving escalated NetFile issues.
- Reports – All staff hours and related OEE spent to provide detail requirements, programming and testing reports related to NetFile.

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<sup>3</sup> The industry model included routine maintenance of software, servers, and database under Operations. The largest percentage of cost attributable to maintenance is included in the Infrastructure and Security categories of this costing.

NetFile Report  
Franchise Tax Board

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**ATTACHMENT 5 – *Private Sector Costing Model (continued)***

10. Technical Support –

- Call Volume – All staff hours and related OEE used to answer NetFile calls as of July 31, 2003. The cost includes a portion of the call center infrastructure.
- Creation of training materials, policies, and procedures – All staff hours and related OEE spent on creating the NetFile training materials.
- Training – All staff hours and related OEE expended on providing NetFile training and attending NetFile training.

11. Management –

- Project schedule, work plans, and management – All staff hours and related OEE used to create the project schedule and the various work plans.
  - Project Website – All staff hours and related OEE used to design and program the project website.
  - Communications, Outreach, and Marketing – All staff hours and related OEE to develop communication, outreach, and marketing plans. Includes cost of one advertisement placed in Sacramento News & Review for \$421.
  - Feasibility Study and Report – All staff hours and related OEE used to research, develop, cost and receive approval on the Feasibility Study Report.
  - Executive and management – All hours and related OEE FTB executives and management expended on the NetFile project.
-

**ATTACHMENT 6: Government Code Section 11019.9**

**11019.9.** Each state department and state agency shall enact and maintain a permanent privacy policy, in adherence with the Information Practices Act of 1977 (Title 1.8 (commencing with Section 1798) of Part 4 of Division 3 of the Civil Code), that includes, but is not limited to, the following principles:

- (a) Personally identifiable information is only obtained through lawful means.
- (b) The purposes for which personally identifiable data are collected are specified at or prior to the time of collection, and any subsequent use is limited to the fulfillment of purposes not inconsistent with those purposes previously specified.
- (c) Personal data shall not be disclosed, made available, or otherwise used for purposes other than those specified, except with the consent of the subject of the data, or as authorized by law or regulation.
- (d) Personal data collected must be relevant to the purpose for which it is collected.
- (e) The general means by which personal data is protected against loss, unauthorized access, use modification or disclosure shall be posted, unless that disclosure of general means would compromise legitimate state department or state agency objectives or law enforcement purposes.
- (f) Each state department or state agency shall designate a position within the department or agency, the duties of which shall include, but not be limited to, responsibility for the privacy policy within that department or agency.

## ATTACHMENT 7: FTB Pub. 7700, Information Security Requirements for Employees with Access to Confidential Information

### **Report any suspected information security violation to your supervisor or data security personnel.**

Examples of security violations include, but are not limited to:

- Unauthorized access, use, or disclosure of confidential information.
- Unauthorized use of a user ID or Password. It is important to report any unusual circumstances on the computer network, such as data that appears to be of questionable accuracy, since this may indicate a security violation, a computer virus or hacker intrusion.

Employees with disclosure questions may request information from their agency contact listed below:

#### **EDD Contact:**

Tax Disclosure Officer  
Employment Development Department  
PO Box 826880, MIC: 93  
Sacramento, CA 94280-0001  
Telephone Number: (916) 654-5981

#### **FTB Contact:**

Disclosure Officer  
Franchise Tax Board  
9646 Butterfield Way, MIC: B-1  
Sacramento, CA 95827  
Telephone Number: (916) 845-3226

#### **BOE Contact:**

Disclosure Officer  
State Board of Equalization  
450 N Street, MIC: 54  
Sacramento, CA 95814  
Telephone Number: (916) 324-2063

## **INFORMATION SECURITY REQUIREMENTS FOR EMPLOYEES WITH ACCESS TO CONFIDENTIAL INFORMATION**



Employment Development Department  
(EDD)  
Franchise Tax Board (FTB)  
State Board of Equalization (BOE)

Confidential information is protected by law, regulation, and policy. Information security is strictly enforced. If you violate the rules, you are subject to administrative discipline, including but not limited to: reprimand, suspension without pay, salary reduction, demotion, and/or dismissal from State service; criminal prosecution; civil lawsuit. Protecting confidential information is in the public's interest, the state's interest, and your own personal interest.

## **Standards and rules relating to confidentiality:**

- As a general rule, treat all tax and non-tax program information received, maintained, or generated by EDD, FTB, BOE, or the Internal Revenue Service (IRS) as confidential. Examples of protected information include: tax account information, taxpayer, feepayer, claimant and employer information, information about individuals which relates to their personal life or which identifies or describes an individual, IRS and other agencies' confidential and proprietary information, methods agencies' use to safeguard their information, including computer systems, networks, server configurations, etc., and any other information that is considered proprietary, a trade secret, or otherwise protected by law or contract. Protected information may be electronic, paper, disks/CDs, tape, or any other medium.
- Do not access, request, acquire, or examine confidential information unless there is a need to do so in the normal course of your work. This includes casual or curious browsing of any information that is not a part of your assigned work. Do not access information about celebrities or other well-known individuals unless this activity is necessary as part of your assigned work.
- The agency's information and computer systems are for state business uses only. Do not access, use, or modify any agency information to achieve private or personal gain.
- Do not access, modify, or examine information about your family, friends, neighbors, co-workers, business associates, or your own personal account. This includes the accounts of any bank, corporation, or exempt organization of which you are a member or officer. If any of these accounts are assigned to you as a part of your work,

do not work the account. Notify your supervisor immediately.

- Do not discuss or disclose confidential information to unauthorized individuals, including members of your own family, friends, or other employees who do not have a need to know. This includes both written and verbal disclosure.
- Do not intentionally destroy confidential information, make copies of it for personal use, or remove it from the premises without authorization.
- Dispose of confidential information using approved destruction methods.

### **User ID use and protection:**

- You are personally responsible and accountable for all activity occurring under your user ID and password. It is in your best interest to protect them!
- Never use anyone else's user ID and password nor allow anyone to use yours.
- Select secure passwords. Select an unusual combination of characters. Avoid words with any personal association, such as names of your family members or pets, and your favorite hobbies, sports, or vacation spots. Non-words including numbers are more secure.
- Keep your password to yourself. This includes passwords used for dial-up or remote access. Don't write it down, post it on your workstation, or include it in a data file, log-on script, or macro.

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***Unauthorized access, use, or disclosure of confidential information is a crime under state and federal laws. Employees who violate the law are subject to administrative discipline, criminal prosecution and/or civil lawsuit.***

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- Change your password immediately if it has been revealed or compromised, or you think someone else might know it.
- Report any suspected unauthorized use of your user ID or password immediately to your supervisor or data security office.

### **Secure your information when you leave your PC or workstation, even if it's only for a few minutes.**

Take these steps:

- Workstation users: Log off or lock up your workstation when not in use.
- PC users: Save the information to a disk, CD or other back up media; store the saved information in a secure place.
- Paper documents: Ensure they are secured at all times.
- Employees with public contact: Make sure your workstation screen is not visible to members of the public.
- Employees located in a facility shared by another agency (e.g., Taxpayer Service Centers, etc.): Make sure your screen is not visible to another agency's employees.

### **Use of, and access to, the agency's computer network, including the mainframe, all LANs, and PCs:**

- Computer networks are for the use of authorized persons only. Access is a privilege granted by your employer. Your agency reserves the right to limit, restrict, or extend access to its computer network and to its data resources.
- Use only computers, networks, applications, and information for which you are authorized.
- All access to confidential information is monitored. Anyone using the EDD, FTB, or BOE computer systems expressly consents to such monitoring.

## OUTSIDE EMPLOYMENT SURVEY

This form must be completed by each person:

- ## IMPORTANT

*For Privacy Act Notice see FTB Form 1131-H*

<b>Check one</b>			
<b>A</b>		I am not engaged in outside employment.	
<b>B</b>		I have discontinued outside employment during the past year.	
<b>C</b>		I am continuing outside employment. ( <i>Check one</i> ) <input type="checkbox"/> MILITARY <input type="checkbox"/> CIVILIAN (describe below)	
<b>D</b>		I am engaged in outside employment (describe below) for which no FTB 7809 is on file.	
		<b>1</b> Name and Address of Employer	
		<b>2</b> Type of Employment (Clerk, Salesperson, Truck Driver, etc.)	
		<b>3</b> Number of Hours Worked Per Month	
		<b>4</b> Terms of Employment	
		No. of Hours Worked Per Week at Franchise Tax Board	
Employee Name (Type or Print)		Payroll Unit Number	Employee Classification
Employee Signature		Social Security Number	Date

**APPROVAL (REQUIRED IF ITEM D IS COMPLETED)**

Supervisor	<input type="checkbox"/> Recommended for Approval	<input type="checkbox"/> Recommended for Disapproval	Date
Assistant Executive Office/Chief Counsel	<input type="checkbox"/> Recommended for Approval	<input type="checkbox"/> Recommended for Disapproval	Date

If Recommended for Disapproval, State Reason Why



## Confidentiality Statement

Confidential information is protected from disclosure by law, regulation, and policy. Information security is strictly enforced. Protecting confidential information is in the public's interest, the state's interest, and your own personal interest.

State employees and contractors must protect the following types of confidential information:

- Tax account information
- Taxpayer and feepayer information
- Claimant and employer information
- Information about individuals that relates to their personal life or identifies or describes an individual
- Internal Revenue Service's confidential and proprietary information
- Other agencies' confidential and proprietary information
- Criteria used for initiating audit selection
- Methods agencies use to safeguard their information, including computer systems, networks, server configurations, etc.
- Any other information that is considered proprietary, a copyright, or otherwise protected by law or contract

State employees and contractors shall protect confidential information by:

- Accessing, inspecting, using, disclosing or modifying information only for the purpose of performing official duties
- Never accessing, inspecting, using, disclosing, or modifying information for curiosity, personal gain, or any non-business related reason
- Securing confidential information in approved locations
- Never removing confidential information from your work site without authorization

As a State employee or contractor, you are required to know whether information you have been granted access to is confidential. If you have any questions, contact your agency's Disclosure Officer or Information Security Officer.

Unauthorized access, inspection, use, or disclosure of confidential information is a crime under state and federal laws, including but not limited to: California Revenue and Taxation Code sections 19542, 19542.1, and 19552; California Penal Code section 502; California Unemployment Insurance Code sections 1094, 2111, and 2714; California Government Code section 15619; California Labor Code section 1198.6; and Internal Revenue Code sections 6103, 7213, 7213A and 7431. Unauthorized access, inspection, use, disclosure, or modification of confidential information can result in:

- Administrative discipline, including but not limited to: reprimand, suspension without pay, salary reduction, demotion, and/or dismissal from State service
- Criminal prosecution
- Civil lawsuit
- Termination of contract

Access to computer-based confidential information is monitored. State employees and contractors who are granted access to computer-based confidential information maintained by the Franchise Tax Board, the Employment Development Department, or the State Board of Equalization expressly consent to such monitoring.

These rules are designed to protect everyone's right to privacy, including yours.

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### CERTIFICATION

I expressly consent to the monitoring of my access to computer-based confidential information by the Franchise Tax Board, the Employment Development Department, the State Board of Equalization, or any State agency designated by them.

I further certify that I understand unauthorized access, inspection, use, modification, or disclosure of confidential information is punishable as a crime and/or can result in disciplinary and/or civil action taken against me.

I certify that I have received and read this confidentiality statement and have been provided the *Information Security Requirements For Employees with Access to Confidential Information* pamphlet.

Employee/Contractor Name (Print)	
Signature	DATE

I certify that I reviewed and discussed this Confidentiality Statement with the employee named above.

Supervisor's Name (Print)	
Supervisor's Signature	DATE



## NetFile Report Franchise Tax Board

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### ATTACHMENT 9: FTB Website Screen Shots Showing Hyperlink Positioning



## NetFile Report Franchise Tax Board

Free e-file Options - Microsoft Internet Explorer provided by FTB

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History

Address http://www.ftb.ca.gov/individuals/eServices/efile/freechart.asp

California Home Friday, August 22, 2003

Welcome to **California** HOLLYWOOD

[FTB Homepage](#)  
[Contact FTB](#)  
[About FTB](#)  
[Top 10 Forms](#)  
[Top 25 Business Forms](#)  
[All Forms & Publications](#)  
[Ayuda en Español](#)  
[Taxpayer Advocate](#)  
[Law & Legislation](#)  
[Public Meeting Notices](#)  
[Site Index](#)

[Individuals](#) | [Tax Professionals](#) | [Businesses](#) | [Forms](#) | [e-  
Services](#)

**Franchise Tax Board**  
**Free e-file Options**

 Check out the following FREE e-file services, carefully review the offers. Many offers are limited based on income or other eligibility requirements.

**Free e-file from Franchise Tax Board**

[NetFile](#) NetFile is free, fast, and easy to use. Millions of California taxpayers are [eligible](#). NetFile is secure and free.

**Free e-file from software companies**

<a href="#">eSmartTax</a>	<a href="#">TurboTax for the Web</a>	<a href="#">FileYourTaxes.com</a>
<a href="#">H&amp;R Block</a>	<a href="#">eTaxReturn.com</a>	<a href="#">TaxSlayer.com</a>
<a href="#">TaxBrain.com</a>	<a href="#">TaxSimple</a>	<a href="#">US File.com</a>

Internet

# NetFile Report

## Franchise Tax Board

FTB Approved Do It Yourself e-file Software - Microsoft Internet Explorer provided by FTB

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History

Address: <http://www.ftb.ca.gov/individuals/eServices/efile/efilesoftware.html> Go Links

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**California Home** Friday, August 22, 2003

Welcome to **California**

[FTB Homepage](#) [Individuals](#) [Tax Professionals](#) [Businesses](#) [Forms](#) [e-  
Services](#)

**Franchise Tax Board**

**Compare e-file options**

 You have many options for secure, fast, and easy e-file!

- Do it yourself using one of the e-file options on the chart below, or
- Ask an [approved e-file provider](#) to e-file for you.

	Free*	Direct (citizen-to-FTB)	Internet (transmit via Internet)
<b>Do-it-yourself options from FTB</b>			
<a href="#">NetFile</a>	X	X	X
<b>Do-it-yourself options from software companies</b>			
<a href="http://www.completetax.com">www.completetax.com</a>			
<a href="http://www.eSmartTax.com">www.eSmartTax.com</a>	X	X	X
<a href="http://www.eTaxReturn.com">www.eTaxReturn.com</a>	X		X
<a href="http://www.fileyourtaxes.com">www.fileyourtaxes.com</a>	X		X
<a href="http://www.hrblock.com">www.hrblock.com</a>	X		

\*Free for citizens filing their own returns

Internet

**Improvements Are Needed to Ensure  
Individual Taxpayers Have an Easy, No-Cost  
Option to *e-file* Their Tax Returns**

**August 2003**

**Reference Number: 2003-40-165**

**This report has cleared the Treasury Inspector General for Tax Administration disclosure review process and information determined to be restricted from public release has been redacted from this document.**



DEPARTMENT OF THE TREASURY  
WASHINGTON, D.C. 20220

INSPECTOR GENERAL  
for TAX  
ADMINISTRATION

August 14, 2003

MEMORANDUM FOR COMMISSIONER, WAGE AND INVESTMENT DIVISION

*Gordon C. Milbourn III*

FROM: Gordon C. Milbourn III  
Assistant Inspector General for Audit (Small Business and  
Corporate Programs)

SUBJECT: Final Audit Report - Improvements Are Needed to Ensure  
Individual Taxpayers Have an Easy, No-Cost Option to *e-file*  
Their Tax Returns (Audit # 200240083)

This report presents the results of our review to assess the Internal Revenue Service's (IRS) implementation of the free electronic filing (*e-file*) initiative for individual tax returns.<sup>1</sup> The President's Fiscal Year 2003 budget included a proposal for an easy, no-cost option for taxpayers to file their tax returns online. The President noted that "today, individuals have to pay accountants, buy software, and pay fees just to file their tax returns. It should not be so hard to pay taxes."

In response, on October 30, 2002, the IRS entered into a 3-year Agreement<sup>2</sup> with a group of companies from the electronic tax preparation and filing industry<sup>3</sup> to provide free *e-filing* to at least 60 percent of all taxpayers who file an individual tax return. This Agreement enabled the IRS to quickly offer certain taxpayers the option to *e-file* their tax returns at no cost using tax preparation software developed by industry experts, rather than having to try to develop its own tax preparation software. In addition, using established industry *e-file* capabilities would require little investment on the part of the IRS and would provide taxpayers with access to companies that have proven expertise and experience in the field of electronic tax preparation and *e-filing*.

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<sup>1</sup> For the remainder of this report, we will refer to this initiative as the "Free File Program."

<sup>2</sup> For the purposes of this report, the term "Agreement" relates to the Agreement between the IRS and the Free File Alliance, LLC, not the Agreement between the companies involved in the Alliance.

<sup>3</sup> This group has formed a limited liability corporation under the name "Free File Alliance, LLC," which is managed by the Council for the Electronic Revenue Communication Advancement.

Taxpayers can obtain information on how to participate in the IRS' Free File Program by accessing the IRS' Internet web site ([www.irs.gov](http://www.irs.gov)). The Free File web page provides a tool to assist taxpayers in determining whether they meet the eligibility requirements necessary to participate in the Free File Program. To determine eligibility, a taxpayer enters information that includes age, income, military status, and state of residence. Based on the information entered, a computer program determines if the taxpayer is eligible to participate and, if eligible, from which of the participating companies the taxpayer can select.

Despite time constraints and inexperience in developing and implementing this Program in time for the filing season,<sup>4</sup> the IRS exceeded its Free-File Program goal of providing at least 60 percent of individual taxpayers with the option to prepare and *e-file* their tax returns at no cost. Specifically, the Free-File Program, implemented January 16, 2003, provided the no-cost option of tax preparation and *e-filing* to approximately 119 million of the estimated 127 million taxpayers who file an individual tax return.<sup>5</sup>

However, the terms of the Agreement result in a population of taxpayers who will incur a cost if they elect to *e-file* their tax return, because Agreement guidelines permit participating companies to change their eligibility requirements twice during a filing season and from year to year, or to discontinue participation in the Program at any time. The population of taxpayers not eligible to participate in the Free File Program included approximately 8 million taxpayers who, if they elected to *e-file*, would incur a cost. If, at any time, companies change their requirements and the total eligibility is reduced to the IRS' minimum goal of offering no-cost *e-filing* to 60 percent of all individual taxpayers, then nearly 51 million taxpayers would be ineligible to participate.

Time constraints contributed to the fact that procedures were not developed and implemented that could have reduced taxpayer confusion and difficulty. Specifically, taxpayers were not always provided with clear and accurate participation information, including the procedures to be followed to ensure taxpayers did not unknowingly receive a charge for *e-filing* and to ensure they receive immediate notification of company eligibility changes. In addition, the IRS has not developed a formal process by which to independently monitor and measure the success of the Program. The computer programming to add an indicator to identify those tax returns filed via the Free File Program could not be performed in time to enable the IRS to independently monitor the numbers and types of taxpayers participating during the 2003 Filing Season. Additionally, time constraints and not having the necessary technical expertise hindered the IRS' ability to independently monitor company compliance with key provisions in the Agreement, including privacy, security, and customer service.

To enable individual taxpayers to have an easy, no-cost option to *e-file*, we recommended that the Director, Electronic Tax Administration: 1) continue to work with

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<sup>4</sup> The filing season is the period from January through mid-April when most individual income tax returns are filed.

<sup>5</sup> Eligibility requirements and the number of taxpayers eligible to participate in the Free File Program are subject to significant fluctuation. The reference to the number of eligible/ineligible taxpayers throughout this report is as of February 11, 2003.

the electronic tax preparation and filing industry to maximize the number of individual taxpayers who have the option to *e-file* at no cost, 2) continue to work with the tax preparation software industry to eliminate barriers affecting eligible taxpayers receiving no-cost *e-filing* and ensure taxpayers receive timely and accurate information, and 3) develop a formal monitoring process outlining the procedures for assessing the Program's success and company compliance with Agreement guidelines.

Management's Response: IRS management agreed with our recommendations and has initiated corrective actions. However, management did not agree that the only performance objective should be ensuring that all individual taxpayers are eligible to use the Free File Program. Instead, the IRS believes an equally important objective is to increase awareness of the Program, which will result in more Free File users.

While 119 million of the 127 million individual taxpayers were eligible to use Free File, IRS management stated that only 2.78 million did so. IRS management did not agree with the methodology and concept we used to determine our outcome measures that assume that 100 percent of all non-eligible taxpayers will use Free File if given the opportunity. In their view, this assumption, coupled with the low probability that 40 percent will not be eligible in the future, yields unreasonable expectations.

In addition, while the IRS acknowledged that the coverage of eligible taxpayers may fluctuate from year to year, the current Administration endorsed the requirement to maintain aggregate eligibility coverage of at least 60 percent of all individual taxpayers. Management's complete response to the draft report is included as Appendix VIII.

Office of Audit Comment: IRS management disagreed "that the only performance objective should be ensuring that all individual taxpayers were eligible to use Free File." We agree with management's assertion that this should not be the only performance objective, and in fact, we did not take that position in our draft report. Instead, we recommended that the IRS continue to work with the electronic tax preparation and filing industry to *maximize* the number of individuals eligible to *e-file* at no cost. In addition, management disagreed with our cost savings outcome measure with respect to the methodology and concept that 100 percent of all non-eligible taxpayers will use Free File if given the opportunity. As stated in our outcome calculation, the estimate is a *potential* cost savings, because we acknowledge the uncertainty of the number of taxpayers who, if provided the option to *e-file* at no cost, would elect to use this option in lieu of filing a paper tax return.

Copies of this report are also being sent to the IRS managers who are affected by the report recommendations. Please contact me at (202) 622-6510 if you have questions or Michael R. Phillips, Assistant Inspector General for Audit (Wage and Investment Income Programs), at (202) 927-0597.

**Improvements Are Needed to Ensure Individual Taxpayers  
Have an Easy, No-Cost Option to e-file Their Tax Returns**

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## Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to *e-file* Their Tax Returns

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### Background

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The President's Fiscal Year 2003 budget included a proposal for an easy, no-cost option for taxpayers to file their tax returns online. The President noted that "today, individuals have to pay accountants, buy software, and pay fees just to file their tax returns. It should not be so hard to pay taxes." In addition, the Office of Management and Budget's Quicksilver Task Force<sup>1</sup> recommended "EZ Tax Filing," whereby the Internal Revenue Service (IRS) provided taxpayers free online tax return preparation and filing services; this electronic filing is known as *e-file*.

#### **The IRS elected to use existing *e-file* industry expertise rather than develop its own free *e-file* system**

In response to the President's budget proposal and the Quicksilver Task Force recommendation, on October 30, 2002, the IRS entered into a 3-year, public-private partnership Agreement with the Free File Alliance, LLC,<sup>2</sup> to provide no-cost tax preparation and filing to at least 60 percent of all taxpayers who file an individual tax return.<sup>3</sup> Based on this level of coverage, the IRS expected a total of 2.4 million taxpayers to file their tax returns at no cost during the 2003 Filing Season.<sup>4</sup>

The IRS' decision to join with the electronic tax preparation and filing industry was based on a number of factors including a desire to quickly implement a Free File Program, the lack of immediate resources to develop a system to enable taxpayers to *e-file* their tax returns directly to the IRS, and the industry urging the IRS not to compete with it. Use of established industry *e-file* capabilities would require little investment on the part of the IRS and would

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<sup>1</sup> This team was assembled from various Federal Government agencies to identify priority actions that would achieve strategic improvements in the Government based on citizen needs.

<sup>2</sup> Corporate name for a group of companies from the electronic tax preparation and filing industry that formed a limited liability corporation managed by the Council for the Electronic Revenue Communication Advancement.

<sup>3</sup> For the purposes of this report, the term "Agreement" relates to the Agreement between the IRS and the Free File Alliance, LLC, not the Agreement between the companies involved in the Alliance.

<sup>4</sup> The filing season is the period from January through mid-April when most individual income tax returns are filed.

## Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to *e-file* Their Tax Returns

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provide taxpayers with access to companies that have proven expertise and experience in the field of electronic tax preparation and *e-filing*.

In addition, the IRS already had a similar program in place under which companies from the electronic tax preparation and filing industry offered free *e-filing* to taxpayers who met certain requirements. For the past several years, certain companies had offered no-cost tax preparation and *e-filing* to select taxpayer groups through an IRS-sponsored web site. These services were offered mainly to assist low-income and underserved taxpayers.<sup>5</sup> For example, during the 2002 Filing Season, 9 companies from the electronic tax preparation and filing industry offered both free tax preparation and *e-file* to approximately 58 percent of all individual taxpayers. Eligibility for an estimated 73 million individual taxpayers was generally based on the taxpayers having incomes of less than or equal to \$25,000. Approximately 1.2 million taxpayers took advantage of the offers during the 2002 Filing Season. These same companies are now part of the Free File Alliance, LLC.

### **The Free File Agreement specifies responsibilities for both the IRS and the participating companies**

The Free File Agreement (formally referred to as the “Free On-Line Electronic Tax Filing Agreement”) includes specific responsibilities that both the IRS and the participating companies need to meet. Appendix V lists the key requirements that need to be met for companies to participate in the Program.

For example, the IRS agrees to host and manage the content of the Free File web page, refrain from endorsing any specific offerings or products, promote the free *e-file* services provided by the participating companies, and not offer an IRS brand of *e-file* during the term of the Agreement. The companies agree to establish eligibility requirements (see Appendix VI), disclose to users their

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<sup>5</sup> Those individuals that cannot reasonably access tax assistance by virtue of their income level, diversity, language, or age and for whom no reasonable alternative assistance is available in the commercial market.

## Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to *e-file* Their Tax Returns

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customer service support options and privacy policy,<sup>6</sup> and work with taxpayers whose tax returns are rejected (i.e., not accepted for processing by the IRS because of an error).

### **The Free File web page is the gateway to participation in the Free File Program**

Taxpayers can obtain information on how to participate in the Free File Program by accessing the IRS' Internet web site (www.irs.gov). The Free File web page provides a tool to assist taxpayers in determining whether they meet the eligibility requirements necessary to participate in the Free File Program. To determine eligibility, a taxpayer enters information that includes age, income, military status, and state of residence. Based on the information entered, a computer program determines if the taxpayer is eligible to participate and, if eligible, from which of the participating companies the taxpayer can select. Taxpayers are then provided with a link to the applicable companies.

Once taxpayers select the link for the company they choose, they leave the IRS' web site and enter the specific company's web site. These taxpayers will then be provided instructions on how to prepare and file their Federal income tax returns online using software provided by the participating companies. Upon completing their tax returns, taxpayers then have the option to *e-file* the returns to the IRS or to print and mail them to the IRS.

The audit was conducted from November 2002 through February 2003 at the IRS' National Headquarters in Washington, D.C., in the office of Electronic Tax Administration. The audit was conducted in accordance with *Government Auditing Standards*. Detailed information on our audit objective, scope, and methodology is presented in Appendix I. Major contributors to the report are listed in Appendix II.

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<sup>6</sup> 26 U.S.C. § 7216 (2003) prohibits the unauthorized use or disclosure of tax return information by tax return preparers.

## Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to *e-file* Their Tax Returns

### The Internal Revenue Service Exceeded Its Goal of Providing At Least 60 Percent Eligibility

Despite time constraints and inexperience in developing and implementing this Program in time for the filing season, the IRS' newest *e-file* initiative, the Free-File Program, exceeded its goal of providing at least 60 percent of individual taxpayers with the option to prepare and *e-file* their tax returns at no cost. Specifically, the Free File Program, implemented on January 16, 2003, for the 2003 Filing Season, provided the option of no-cost tax preparation and *e-filing* to approximately 119 million of the estimated 127 million taxpayers who file an individual tax return.<sup>7</sup> The table below outlines the characteristics of taxpayers who were eligible to participate in the Free File Program as of February 2003. Taxpayers are required to meet one of the listed requirements to participate.

Free File Program Eligibility Requirements<sup>8</sup>

Eligibility Characteristics	Requirements to Qualify
Age	Less than 21 years old or at least 50 years old.
Income	Income \$50,000 or greater or \$33,000 or less.
Military Status	On active military duty.
Residence	Resident of Illinois, Georgia, North Carolina, Arizona, Michigan, Wisconsin, or Ohio.
Tax Credit	Qualify for the Earned Income Tax Credit.
Type of Tax Form	File using Income Tax Return for Single and Joint Filers With No Dependents (Form 1040EZ).

Source: *Wage and Investment, Research Group I.*

<sup>7</sup> Eligibility requirements and the number of taxpayers eligible to participate in the Free File Program are subject to significant fluctuation. The number of eligible taxpayers is as of February 11, 2003.

<sup>8</sup> Taxpayers are required to meet only one requirement to qualify for participation in the Free File Program.

## Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to *e-file* Their Tax Returns

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However, to ensure individual taxpayers have an easy, no-cost option to *e-file* their tax returns, the IRS needs to address the following issues:

- The group of taxpayers eligible to participate was not consistent.
- Taxpayers were not always provided with timely and accurate participation information.
- The IRS was limited in its ability to independently monitor and measure the success of the Program.

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### The Group of Taxpayers Eligible to Participate Was Not Consistent

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Maximizing and holding consistent the number of taxpayers who are eligible to participate in the Free File Program is essential to ensuring equitable taxpayer treatment and to reducing taxpayer burden, a key goal of the Program. Agreement guidelines permit participating companies to change their eligibility requirements twice during a filing season and from year to year, or to discontinue participation in the Program at any time.

The Agreement does not mandate which taxpayers will be covered, only that each participating company must offer free *e-file* to at least 10 percent of all individual taxpayers based on the eligibility requirements each company establishes. In the aggregate, companies participating must provide 60 percent of all individual taxpayers with the option to *e-file* at no cost.

As of February 2003, the population of taxpayers not eligible to participate in the Free File Program included approximately 8 million taxpayers. If these taxpayers elected to *e-file*, they would incur a cost. The following table provides some characteristics of the taxpayers ineligible to participate. Taxpayers ineligible to participate would meet all disqualifying characteristics.

## Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to *e-file* Their Tax Returns

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### Characteristics of Taxpayers Who Are Ineligible to Participate in the Free File Program

Eligibility Characteristics	Not Qualifying
Age	Ages 21 to 50.
Income	Income over \$33,000 but less than \$50,000 (not filing a Form 1040EZ).
Military Status	Not in active military duty.
Residence	Do not reside in Illinois, Georgia, North Carolina, Arizona, Michigan, Wisconsin, or Ohio.
Tax Credit	Not eligible for the Earned Income Tax Credit.
Type of Tax Form	Not eligible to file Form 1040EZ.

*Source: Wage and Investment, Research Group I.*

Furthermore, if at any time company offerings are reduced to the IRS' minimum goal of offering no-cost *e-filing* to 60 percent of all individual taxpayers, then nearly 51 million taxpayers would be ineligible to participate. Inequitable treatment results as offerings do not cover taxpayers with the same or very similar characteristics. Specifically, some taxpayers will have the option to *e-file* at no cost, while others with the same or very similar characteristics will incur a cost to *e-file*, as shown by the following hypothetical examples:

#### **Example #1**

- *Taxpayer A - 20 years of age with an income less than or equal to \$33,000 or greater than \$50,000 is eligible to e-file at no cost.*
- *Taxpayer B - 20 years of age with an income between \$33,000 and \$50,000 is generally<sup>9</sup> ineligible to participate.*

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<sup>9</sup> This taxpayer would, however, be eligible if he or she resides in one of the seven states covered by offers for free *e-filing*, is in active military service, or is filing a Form 1040EZ.

## Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to e-file Their Tax Returns

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### Example #2

- *Company A - From January 16, 2003, to January 30, 2003, provided residents of New York State with the option to e-file at no cost.*
- *Company A - As of January 31, 2003, changed its eligibility requirements to rescind the offer of free e-filing to residents of New York State. Therefore, taxpayers with the same characteristics as those who filed between January 16 and January 30, 2003, will now incur a cost to e-file. The only difference is that these taxpayers did not e-file prior to January 31, 2003.*

The quickness with which the IRS developed and implemented its newest *e-file* initiative shows the IRS' commitment to expanding *e-file* opportunities for individual taxpayers. However, a recent IRS study<sup>10</sup> found that taxpayers who prepare their tax returns using tax preparation software, but who elect to print and mail their tax returns to the IRS, often do so **because of the cost** they would have to incur to *e-file* their tax returns.

Under the present Agreement, at any time 40 percent of all individual taxpayers (approximately 51 million) are at risk of being excluded from participation in the Free File Program. If these taxpayers were to elect to *e-file*, they could incur a minimum cost of \$7.95<sup>11</sup> each, or an estimated \$403 million annually, just to *e-file* their tax returns. Also, if these taxpayers were provided with the option to *e-file* at no cost, and elected this option in lieu of filing a paper tax return, the IRS could save approximately \$37 million in processing costs yearly.<sup>12</sup>

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<sup>10</sup> Electronic Tax Administration - Survey of Taxpayers Who Use Paid Preparers and File V-Coded Returns Project 1-02-08-3-004 (1.51b) (dated October 2002).

<sup>11</sup> We used \$7.95 as a per tax return *e-file* cost to be conservative. This is the least expensive "for-pay" *e-file* service covering all individual tax returns (e.g., Forms 1040EZ, 1040A, and 1040) among the companies participating in the Free File Program.

<sup>12</sup> The IRS saves approximately \$1.08 per tax return to process an *e-filed* tax return instead of a paper tax return.

## Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to *e-file* Their Tax Returns

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### Recommendation

To eliminate the costs taxpayers incur to *e-file* and ensure equitable treatment of taxpayers, the Director, Electronic Tax Administration, should:

1. Continue to work with the electronic tax preparation and filing industry to maximize the number of individual taxpayers who have the option to *e-file* at no cost.

Management's Response: Although the IRS agreed with this recommendation, the terms of the existing partnership Agreement with industry are to provide free services to at least 60 percent of taxpayers. The IRS accomplished and exceeded this goal. Even though the Agreement does not include a goal to provide free services to all individual taxpayers, the IRS will work with the industry to identify and implement ways to increase the percent of individuals eligible to use these free services.

However, IRS management did not agree that the only performance objective should be ensuring that all individual taxpayers are eligible to use the Free File Program. Instead, the IRS believes an equally important objective is to increase awareness of the Program, which will result in more Free File users.

While 119 million of the 127 million individual taxpayers were eligible to use Free File, only 2.78 million did so. IRS management did not agree with the methodology and concept we used to determine our outcome measures (see Appendix IV) that assume that 100 percent of all non-eligible taxpayers will use Free File if given the opportunity. In their view, this assumption, coupled with the low probability that 40 percent will not be eligible in the future, yields unreasonable expectations.

Office of Audit Comment: IRS management disagreed “that the only performance objective should be ensuring that all individual taxpayers were eligible to use Free File.” We agree with management’s assertion that this should not be the only performance objective, and in fact, we did not take that position in our draft report. Instead, we recommended that the IRS continue to work with the electronic tax



## Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to *e-file* Their Tax Returns

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### Taxpayers Were Not Always Provided With Timely and Accurate Participation Information

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preparation and filing industry to *maximize* the number of individuals eligible to *e-file* at no cost. In addition, management disagreed with our cost savings outcome measure with respect to the methodology and concept that 100 percent of all non-eligible taxpayers will use Free File if given the opportunity. As stated in our outcome calculation, the estimate is a *potential* cost savings because we acknowledge the uncertainty of the number of taxpayers who, if provided the option to *e-file* at no cost, would elect to use this option in lieu of filing a paper tax return.

Providing taxpayers with timely and accurate participation information is essential to ensuring the Free File Program goal – to make paying taxes easier for individual taxpayers – is fully achieved. Time constraints and not being familiar with implementing such a Program resulted in the IRS being unable to develop and implement procedures that could have reduced taxpayer confusion and difficulty. As a result:

- Taxpayers did not receive clear instructions as to the steps they need to follow for participation in the Program.
- Taxpayers were not immediately informed as to changes in company eligibility requirements or the impact the fluctuating eligibility requirements could have on them.

### **Taxpayers did not receive clear participation instructions**

One key step needs to be followed by taxpayers who qualify to participate in the Free File Program to ensure they do not inadvertently receive a cost to *e-file* – taxpayers must access companies participating in the Free File Program through the IRS' web page. However, the IRS did not inform taxpayers of the need to access companies participating in the Free File Program via the IRS' web page. As a result, some taxpayers may have inadvertently had to pay to *e-file* if they began the process by directly entering a participating company's web site. The following example illustrates the confusion that taxpayers may have experienced:

- *Our auditor directly accessed one participating company's web site. Upon completing the tax return, the auditor was notified that, if he or she wanted to e-file*

## Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to e-file Their Tax Returns

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*the tax return, a charge of \$7.95 would be incurred. The IRS Free File web page did not provide a caution that, to ensure no-cost e-file, taxpayers should use links provided on the Free File web page.*

- *The auditor then went back and accessed the same company's web site, but this time went through the IRS' Free File web page; prepared the same tax return; and before e-filing, was informed that the tax return filing qualified for free e-file.*

### **Taxpayers were not immediately notified of company eligibility changes or the impact that these changes could have on them**

As previously discussed, terms of the Free File Agreement allow companies to change eligibility requirements to be met by taxpayers to participate in the Free File Program. However, the IRS did not educate taxpayers to ensure they were aware that eligibility requirements can change and that the changes could affect the taxpayers' ability to participate at any particular time. Without this knowledge, there is the potential that taxpayers will reach erroneous conclusions regarding whether they can e-file at no cost. The following hypothetical example illustrates how this can occur:

- *A taxpayer with an income of \$33,000 determines that he or she earned more than the \$32,000 maximum income requirement for Free File participation posted on the Free File web page and pays to e-file. Later, this same taxpayer learns that the income threshold for Free File participation was increased to \$33,000 and, if he or she had waited, he or she could have e-filed at no cost.*

When these issues were brought to IRS management's attention during the audit, they immediately implemented interim procedures to ensure eligibility requirement changes were timely and consistently updated to the Free File web page. However, taxpayers did not receive cautionary information as to eligibility changes as well as how these changes could affect them. As a result, potential taxpayer burden can exist for any of the approximately 127 million individual taxpayers who may have attempted to determine if they were eligible to participate at any given time.

## **Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to *e-file* Their Tax Returns**

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Management noted that they continue to strive to ensure that timely and accurate information is available. However, regardless of the information provided to taxpayers via the Free File Program web page, the IRS will be continually challenged to ensure that taxpayers take the time and care to read the information being provided, in order to understand requirements for participation in the Program.

### **Recommendation**

To reduce taxpayer burden, the Director, Electronic Tax Administration, should:

2. Continue to work with the tax preparation software industry to eliminate barriers affecting eligible taxpayers receiving no-cost *e-filing* and ensure taxpayers receive timely and accurate information.

Management's Response: The IRS agreed with this recommendation. For 2004, the IRS will continue to employ usability practices and work with industry members on improving the way it presents and displays important information to prospective Free File users.

Furthermore, to ensure the best experience possible and eliminate barriers, the IRS has successfully negotiated with the Free File Alliance to modify their operating agreement. This new Agreement will include provisions for the upfront disclosure of supported tax forms and schedules, state programs, and customer service options. These new requirements will help the taxpayer receive accurate and timely information.

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### **The Ability to Independently Monitor and Measure the Success of the Program Was Limited**

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The Free File Agreement requires the IRS to develop an assessment process to measure the extent to which the Program is accomplishing its objectives. The objectives of the Program include making tax return preparation and filing easier, reducing the burden on individual taxpayers, and providing greater service and access to taxpayers.

The IRS, in an attempt to monitor the Program, has performed random checks to ensure participating companies were in compliance with various provisions in the Agreement. Time constraints resulted in the IRS being

## Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to *e-file* Their Tax Returns

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unable to implement a formal process to independently monitor and measure the success of the Program. For example, the computer programming necessary to add an indicator to identify those tax returns filed via the Free File Program could not be performed in time to enable the IRS to independently monitor the numbers and types of taxpayers participating during the 2003 Filing Season. The IRS, instead, had to rely on participating companies to provide this information.

In addition, time constraints and not having the necessary technical expertise hindered the IRS' ability to independently monitor company compliance with key provisions in the Agreement, including privacy, security, and customer service. The IRS relied in part on the assumption that the companies would police themselves and enforce the prohibitions imposed under Federal rules and regulations. Such prohibitions include the use of tax return data for purposes not specifically authorized by the taxpayer. Violation of these statutes can result in imprisonment of company officials.

Discussions with IRS management indicated that, as of March 12, 2003, the IRS was considering hiring a contractor to develop a process to enable it to perform appropriate oversight of company compliance with Agreement guidelines, while at the same time offering the maximum opportunity for effective partnerships with the private sector.

The inability of the IRS to independently monitor and measure the Program can result in taxpayer dissatisfaction with the Free File Program or inequities in the service provided by the various companies. Without effective Program oversight, the IRS is unable to ensure the success of the Free File Program in providing taxpayers with an easy and truly no-cost option to *e-file*. For example, our review of customer service options provided by companies participating in the Program showed that those taxpayers who have difficulty preparing and *e-filing* their tax returns could experience varied levels of customer service depending on the company they choose.

## **Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to e-file Their Tax Returns**

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The Free File Agreement requires companies to post their customer service options on their web sites but does not establish minimum standards for customer service. Some companies were charging as much as \$14.95 for telephone assistance, and others limited their customer service to frequently asked questions. One company was charging \$2.95 for re-filing a tax return that was rejected by the IRS because of an error. See Appendix VII for a summary of customer service options.

### **Recommendation**

To enable independent monitoring of the Free File Program's success and company compliance with Agreement guidelines, the Director, Electronic Tax Administration, should:

3. Develop a formal process to monitor and measure the success of the Program, including company compliance with Agreement guidelines.

Management's Response: The IRS agreed with this recommendation. This year, the IRS will review each member's offerings prior to service being available to taxpayers. All Alliance member sites must be examined and approved before the IRS will post them on its Free File site. The IRS is developing a procedural handbook that it will use to perform and report on the examination of each web site. Additional monitoring of web sites will occur after the initial review and throughout the filing season to ensure that members make no unauthorized modifications.

The IRS will also develop a set of performance measures. These measures will be developed in cooperation with the Alliance members and will be evaluated against the Program's goals and objectives. This will ensure that the Program continues to grow and respond to taxpayer needs.

## Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to *e-file* Their Tax Returns

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### Appendix I

#### Detailed Objective, Scope, and Methodology

The overall objective of this review was to assess the Internal Revenue Service's (IRS) implementation of the free electronic filing (*e-file*) initiative for individual tax returns (referred to hereafter as the "Free File Program"). To accomplish this objective, we conducted the following tests:

- I. Obtained and reviewed provisions of the Free File Agreement between the IRS and a group of companies from the electronic tax preparation and filing industry and the separate Agreement that governs the group of companies offering *e-file* at no cost.
- II. Assessed the process the IRS followed that led to the Free File Agreement.
  - A. Interviewed IRS officials responsible for fulfilling the President's vision for a no-cost option for individual taxpayers to *e-file* their tax returns.
  - B. Identified any alternatives to the final Free File Agreement that were considered and determined/assessed the basis for the IRS' decision to enter into a partnership with the electronic tax preparation and filing industry.
    1. Researched various state free *e-file* initiatives.
    2. Interviewed officials from selected state tax agencies regarding state free *e-file* methods, experiences, and lessons learned.
- III. Determined whether the Free File Agreement results in equitable treatment of taxpayers.
  - A. Obtained a listing, as of February 11, 2003, detailing the Free File Program eligibility requirements.
  - B. Obtained a statistically valid sample of Tax Year 2000 tax return information from the Electronic Tax Administration Marketing Database.
  - C. Based on Tax Year 2000 tax return filing data, assessed the volume of taxpayers who will and will not be eligible to participate in the Free File Program.
  - D. Prepared an analysis to determine, based on taxpayer characteristics (e.g., prepare returns themselves or use paid preparers; prepare returns electronically but submit paper version to the IRS), whether the Free File Agreement results in no-cost *e-file* services being offered to the segment of taxpayers who will most benefit from the Agreement.
  - E. Determined if eligible taxpayers are likely to have access to the Internet that they need to participate in the Free File Program.

**Improvements Are Needed to Ensure Individual Taxpayers  
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- F. Obtained a Department of Commerce study that details by age, income, etc., the percentage of individuals who have home Internet access.
  - G. Stratified eligible taxpayers by income, age, etc., and assessed the percentage of these individuals who are likely or not likely to have home Internet access.
  - H. Evaluated IRS efforts to ensure Internet access for individual taxpayers.
- IV. Determined if controls are in place to ensure that any taxpayers who experience difficulty while using free *e-file* have effective customer support.
- A. Identified the options taxpayers have when experiencing problems while participating in the Free File Program.
  - B. Assessed the effectiveness of the IRS' process for communicating customer service matters to taxpayers.
  - C. Assessed whether sufficient customer service support resources are in place to ensure taxpayers who call the IRS for assistance are effectively assisted.

**Improvements Are Needed to Ensure Individual Taxpayers  
Have an Easy, No-Cost Option to *e-file* Their Tax Returns**

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**Appendix II**

**Major Contributors to This Report**

Michael R. Phillips, Assistant Inspector General for Audit (Wage and Investment Income Programs)

Kerry Kilpatrick, Director

Russell Martin, Audit Manager

Tanya Boone, Senior Auditor

Robert Howes, Senior Auditor



**Improvements Are Needed to Ensure Individual Taxpayers  
Have an Easy, No-Cost Option to e-file Their Tax Returns**

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**Appendix III**

**Report Distribution List**

Commissioner N:C  
Deputy Commissioner for Services and Enforcement N:SE  
Deputy Commissioner, Wage and Investment Division W  
Director, Electronic Tax Administration W:ETA  
Director, Strategy and Finance W:S  
Chief Counsel CC  
National Taxpayer Advocate TA  
Director, Office of Legislative Affairs CL:LA  
Director, Office of Program Evaluation and Risk Analysis N:ADC:R:O  
Office of Management Controls N:CFO:AR:M  
Audit Liaison: GAO/TIGTA Liaison W:S:PA

## Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to *e-file* Their Tax Returns

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### Appendix IV

#### Outcome Measures

This appendix presents detailed information on the measurable impact that our recommended corrective actions will have on tax administration. These benefits will be incorporated into our Semiannual Report to the Congress.

##### Type and Value of Outcome Measure:

Funds Put to Better Use – Potential; approximately \$37 million annually (see page 5).

##### Methodology Used to Measure the Reported Benefit:

Computation of the processing cost savings if the Internal Revenue Service (IRS) provides those taxpayers potentially excluded from the Free File Program with the option to *e-file* for free **and these taxpayers elect to use this option.**

- Total taxpayers = 126,601,522.<sup>1</sup>
- Total taxpayers at risk of not being provided with an option to *e-file* at no cost if the number of eligible taxpayers only meets the IRS' goal of 60 percent, with 40 percent ineligible ( $126,601,522 * 40\% = 50,640,609$ ).
- Number of at-risk taxpayers who file paper tax returns (68.14% of 50,640,609) = 34,506,511. The percentage of individual taxpayers who file paper tax returns is based on an IRS Research function analysis of the Tax Year 2000 Electronic Tax Administration Marketing Database (used by the IRS for Free File Program estimates), which showed that 68.14 percent of all individual taxpayers filed paper tax returns for Tax Year 2000. The remaining taxpayers filed electronically.
- Cost savings per return if taxpayers who file paper returns elect to file via *e-file* = \$1.08.<sup>2</sup>
- Potential annual funds put to better use ( $34,506,511 * \$1.08 = \$37,267,032$ ).

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<sup>1</sup> Based on Tax Year 2000 Electronic Tax Administration Marketing Database which the IRS used for all estimates associated with implementation of the Free File Program (this is the number of taxpayers eligible to participate).

<sup>2</sup> The IRS saves approximately \$1.08 per tax return to process an *e-filed* tax return instead of a paper tax return.

## **Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to e-file Their Tax Returns**

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### Type and Value of Outcome Measure:

#### Reduction of Burden on Taxpayers –

- Potential; an estimated \$403 million in cost savings for individual taxpayers annually (see page 5).
- Potential; reduced difficulty and confusion for an estimated 126.6 million individual taxpayers (see page 9).

### Methodology Used to Measure the Reported Benefit:

#### ***Potential; an estimated \$403 million in cost savings for individual taxpayers annually***

Computation of the tax preparation and *e-file* costs that taxpayers could save if the IRS ensures that all taxpayers have the option to *e-file* for free.

- Total individual taxpayers = 126,601,522.
- Total taxpayers at risk of not being provided with an option to *e-file* at no cost if the number of eligible taxpayers only meets the IRS' goal of 60 percent, with 40 percent ineligible ( $126,601,522 * 40\%$ ) = 50,640,609.
- Minimum cost for taxpayers to *e-file* their tax returns = \$7.95.<sup>3</sup>
- Total potential cost savings for taxpayers annually ( $\$7.95 * 50,640,609$ ) = \$402,592,842.

#### ***Potential; reduced difficulty and confusion for an estimated 126.6 million individual taxpayers***

Computation of the number of taxpayers who may experience reduced burden as a result of the IRS ensuring that taxpayers receive accurate and timely information regarding proper participation procedures and changes in eligibility requirements.

- Total number of individual taxpayers who file tax returns each year based on Tax Year 2000 tax return records maintained by the IRS = 126,601,522.
- Potentially all individual taxpayers may experience less burden and easier filing of their tax returns if the IRS ensures taxpayers receive accurate and timely information regarding participation procedures and changes in eligibility requirements.

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<sup>3</sup> We used \$7.95 as a per tax return *e-file* cost to be conservative. This is the least expensive “for-pay” *e-file* service covering all U.S. Individual Income Tax Returns (i.e., Forms 1040EZ, 1040A, and 1040) among the companies participating in the Free File Program.

**Improvements Are Needed to Ensure Individual Taxpayers  
Have an Easy, No-Cost Option to e-file Their Tax Returns**

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**Appendix V**

**Requirements for Company Participation in the Free File Program**

<b>Requirements for Company Participation</b>	
<ul style="list-style-type: none"><li>• Use online tax preparation software approved by the Internal Revenue Service (IRS) that generates tax returns that can be sent to the IRS via an IRS-approved channel.</li></ul>	
<ul style="list-style-type: none"><li>• Be an authorized IRS <i>e-file</i> provider in accordance with IRS Revenue Procedure 2000-31.</li></ul>	
<ul style="list-style-type: none"><li>• Comply with applicable law including, but not limited to, the Department of the Treasury and IRS rules relating to the process of transmitting <i>e-file</i> tax returns to the IRS.</li></ul>	
<ul style="list-style-type: none"><li>• Have a security seal certification program from a third party agreed to by the companies and the IRS. Certification will be based upon an assessment of the system's ability to protect taxpayer data.</li></ul>	
<ul style="list-style-type: none"><li>• Comply with the privacy provisions of 26 U.S.C. § 7216 (2003). Have a privacy seal certification program from a third party agreed to by the participating companies and the IRS.</li></ul>	
<ul style="list-style-type: none"><li>• Agree that provisions of Free Services shall not be conditioned on obtaining an eligible taxpayer's consent to solicitations of additional business.</li></ul>	

*Source: Free On-Line Electronic Tax Filing Agreement.*

**Improvements Are Needed to Ensure Individual Taxpayers  
Have an Easy, No-Cost Option to *e-file* Their Tax Returns**

**Appendix VI**

**Free File Program Eligibility Requirements**

<b>Free <i>e-file</i> Offers (Each Row Represents One Company's Free <i>e-file</i> Offer)</b>
Individual taxpayers with Adjusted Gross Income (AGI) <sup>1</sup> of \$50,000 or more OR who use Income Tax Return for Single and Joint Filers With No Dependents (Form 1040EZ).
Individual taxpayers with AGI of \$33,000 or less.
Individual taxpayers age 50 or older OR whose AGI is \$12,000 or less.
Individual taxpayers with AGI of \$28,000 or less.
All individual taxpayers in active duty military OR whose AGI is \$30,000 or less.
Individual taxpayers with AGI of \$28,000 or less.
Individual taxpayers with AGI of \$30,000 or less.
Individual taxpayers with AGI of \$28,000 or less.
Individual taxpayers with AGI of \$27,000 or less OR who can claim the Earned Income Tax Credit.
Individual taxpayers with AGI of \$28,000 or less.
Individual taxpayers with AGI of \$27,500 or less.
Individual taxpayers with AGI of \$25,000 or less.
Individual taxpayers who live in Illinois, North Carolina, Ohio, or Georgia.
Individual taxpayers who live in Arizona, Georgia, Michigan, or Wisconsin.
Individual taxpayers age 20 or younger.
Individual taxpayers with AGI of \$9,200 or less.
Individual taxpayers with AGI of \$40,000 or less who file a Form 1040EZ with 1 Form W-2.

*Source: Internal Revenue Service Free File web page, as of February 11, 2003.*

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<sup>1</sup> Adjusted gross income equals total income reduced by certain amounts, such as for an Individual Retirement Arrangement or student loan interest.

**Improvements Are Needed to Ensure Individual Taxpayers  
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**Appendix VII**

**Range of Customer Service Options Offered Under the Free File Program**

<b>Customer Service Options (Each Row Represents One Company's Customer Service Options)</b>
Frequently Asked Questions (FAQ) available to answer taxpayer questions.
Customer service is provided completely online, with online FAQ sheets as well as online questions and answers.
FAQ, online searchable database, email, and telephonic assistance (toll call). However, taxpayers will have to search the FAQ or receive email response to be alerted to this option.
Online automated support module. Telephone service only for paying customers.
FAQ. This level of customer service is provided at no charge for all users. For the fee-based users, personalized secure email communication is also allowed for assistance. This or any other level of customer service beyond the automated assistance above will be available to the free filers only if they purchase this option during, or subsequent to, data entry process. Online automated support module is available to all taxpayers. Personal assistance by phone or email will only be available to paying customers.
FAQ. Other customer service options available for a fee.
Step-by-step guided search process. For fee, live chat, or telephonic services are available.
FAQ and email.
FAQ, toll-free assistance, FAX support, email support, and live chat.
FAQ, email, and message center.
FAQ, email, and online manual.
FAQ and online assistance.
Free online self-help center and mail support. Telephone support for a fee.
FAQ and email (24-hour response).
Email and online text chat for a fee.
FAQ and email.

*Source: Information provided by the IRS' E-Government Office, based on 16 companies for which this information was available.*

**Improvements Are Needed to Ensure Individual Taxpayers  
Have an Easy, No-Cost Option to e-file Their Tax Returns**

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**Appendix VIII**

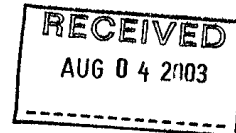
**Management's Response to the Draft Report**



COMMISSIONER  
WAGE AND INVESTMENT DIVISION

DEPARTMENT OF THE TREASURY  
INTERNAL REVENUE SERVICE  
ATLANTA, GA 30308

July 31, 2003



**MEMORANDUM FOR DEPUTY INSPECTOR GENERAL FOR AUDIT**

**FROM:** Henry O. Lamar, Jr. *[Signature]*  
Commissioner, Wage and Investment Division

**SUBJECT:** Draft Audit Report: Improvements Are Needed to Ensure That  
Individual Taxpayers Have an Easy, No-Cost Option to e-file  
Their Tax Returns (Audit #200240083)

As stated in your report, TIGTA's objective was to assess our implementation of the free electronic filing, known as "Free File", initiative for individual tax returns. In general, we agree with your recommendations, which reflect actions we already initiated during the 2003 filing season.

During the 2003 filing season, we received over 2.78 million (as of June 30, 2003) e-filed returns through Free File Alliance members, easily surpassing initial projections of 2.4 million returns. As mentioned in your report, the timeframe to negotiate, develop, and implement the program was extremely short and challenging. Relative to the number of returns, we received very few comments from the public (less than 1 percent of the total number of free returns received) about their Free File experience. Initially set to be available through April 15, all 17 Free File Alliance members extended their free services through October 15, 2003, the end of the e-filing season.

We do not agree that the only performance objective should be ensuring that all individual taxpayers are eligible to use Free File. As you reported, 119 million of the 127 million individual taxpayers were eligible to use Free File this past season, but only 2.78 million taxpayers did so. Therefore, we believe an equally important objective is to increase the program's awareness, which will result in more Free File users. In addition, we acknowledge the coverage of eligible taxpayers may fluctuate from year to year. However, we should not lose sight of our partnership agreement with industry, that the current Administration endorsed, requiring industry to maintain an aggregate eligibility coverage of at least 60 percent of all individual taxpayers.

## **Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to e-file Their Tax Returns**

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2

I have reviewed the outcome measures in your report and do not agree with the methodology and concept that 100 percent of all non-eligible taxpayers will use Free File if given the opportunity. This assumption, coupled with the low probability that 40 percent will not be eligible in the future, yields unreasonable expectations. In addition, we also do not agree that all taxpayers will switch from using tax professionals to using Free File.

In preparation for the 2004 filing season, we are working with the Free File Alliance members to develop program requirements that will improve the overall Free File experience. Some of the suggested enhancements received from taxpayers and interested parties that are being considered include:

- Increasing information about forms and schedules on the Free File web site;
- Improving the customer service options provided by Alliance members; and
- Guaranteeing tax return calculations.

We fully anticipate these suggested changes and our unique partnership with the industry would enable us to deliver an even stronger Free File Program in 2004.

Attached are our comments on your specific recommendations. If you have any questions, please contact Terence H. Lutes, Director, Electronic Tax Administration at (202) 622-7990.

Attachment



## **Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to e-file Their Tax Returns**

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Attachment

### **TIGTA Draft Audit Report Improvements Are Needed to Ensure Individual Taxpayers Have an Easy No Cost Option to e-file Their Tax Returns**

#### **RECOMMENDATION #1:**

To eliminate the costs taxpayers incur to e-file and ensure equitable treatment of taxpayers, the Director, Electronic Tax Administration, should continue to work with industry to maximize the number of individual taxpayers who have the option to e-file at no cost.

#### **CORRECTIVE ACTION:**

Although we agree with this recommendation, the terms of the existing agreement are to provide free services to at least 60 percent of taxpayers. We accomplished and exceeded this goal. Even though the agreement does not include a goal to provide free services to all individual taxpayers, we will work with the industry to identify and implement ways to increase the percent of individuals eligible to use these free services.

#### **IMPLEMENTATION DATE:**

January 16, 2004

#### **RESPONSIBLE OFFICIAL(S):**

Director, Electronic Tax Administration Division

#### **CORRECTIVE ACTION MONITORING PLAN:**

We will continue to monitor the coverage of eligible taxpayers and will ensure the measurement exceeds the 60 percent goal of the agreement.

#### **RECOMMENDATION #2:**

To reduce taxpayer burden, the Director, Electronic Tax Administration, should ensure taxpayers receive timely and accurate information and should continue to work with industry to eliminate barriers impacting on eligible taxpayers receiving no cost e-filing.

## **Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to *e-file* Their Tax Returns**

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2

### CORRECTIVE ACTION:

We agree with this recommendation. As reflected during the 2003 filing season, we were diligent in providing taxpayers with the appropriate information within the Free File web pages to understand, identify, and access free services available to them. Although, we completed the Free File pages using best practices, research shows that web users tend to go directly to areas of interest and generally do not read information designed to provide assistance.

In addition, when we had changes in Alliance member offerings, taxpayers who originally qualified for a free service were given the opportunity to complete their return at no cost (provided they started the return prior to the change). For 2004, we will continue to employ usability practices and work with industry members on improving the way we present and display important information to prospective Free File users.

Furthermore, to ensure the best experience possible and eliminate barriers, we have successfully negotiated with the Free File Alliance to modify their operating agreement. This new agreement will include provisions for the upfront disclosure of supported tax forms and schedules, state programs, and customer service options. These new requirements will help the taxpayer receive accurate and timely information.

### IMPLEMENTATION DATE:

January 16, 2004

### RESPONSIBLE OFFICIAL(S):

Director, Electronic Tax Administration Division

### CORRECTIVE ACTION MONITORING PLAN:

We will continue to use a formal review process to monitor the members' web sites and programs to ensure the agreed-to program requirements set forth in the partnership agreement and the Alliance's operating agreement are met.

### RECOMMENDATION #3:

To enable independent monitoring of the Free File Program's success and company compliance with agreement guidelines, the Director, Electronic Tax Administration, should develop a formal process to monitor and measure the success of the program including company compliance with the agreement guidelines.

## **Improvements Are Needed to Ensure Individual Taxpayers Have an Easy, No-Cost Option to *e-file* Their Tax Returns**

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3

### CORRECTIVE ACTION:

We agree with this recommendation. Shortly after the program's launch in January 2003, we hired a contractor to review the members' web sites and programs. When the vendor, an expert in the online tax software industry, identified concerns they immediately notified the IRS staff and corrective steps were taken.

This year, we successfully negotiated with the Free File Alliance to include a review of each member's offerings prior to service being available to taxpayers. Members will be required to provide the Free File Alliance Director and the IRS with a link to their web sites no less than five business days before the site goes live. All Alliance member sites must be examined and approved before we will post them on our Free File site.

To support this new monitoring activity, we are developing, with contractor support, a procedural handbook that we will use to perform and report on the examination of each web site. Additional monitoring of web sites will occur after the initial review and throughout the filing season to ensure that members make no unauthorized modifications.

We will also develop a set of performance measures. These measures will be developed in cooperation with the Alliance members and will be evaluated against the program's goals and objectives. This will ensure that the program continues to grow and respond to taxpayers needs.

### IMPLEMENTATION DATE:

January 16, 2004

### RESPONSIBLE OFFICIAL(S):

Director, Electronic Tax Administration Division

### CORRECTIVE ACTION MONITORING PLAN:

We will utilize the performance handbook to monitor the performance of each participating web site. In addition, we will track and monitor the program's goals and objectives through the new performance measures.

## NetFile Report Franchise Tax Board

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### ATTACHMENT 11: Other States: Free Internet e-file and Free File Alliance

Twenty-two states offer free personal income tax filing via the Internet. With the exception of Nebraska, every state provides mathematical calculations and tax lookup. Most provide a complete and easy to use taxpayer experience. Colorado, Kansas and Virginia are good examples. A demo is available on the Kansas website. The information contained below is from the Federation of Tax Administration and research done by the Franchise Tax Board. The District of Columbia, New Hampshire and Oregon plan to expand into free web based PIT filing. West Virginia now offers an on-line fill-in PIT return that provides all math and tax computations. The form is then printed and mailed to the State.

The following states mandate e-file for tax professionals

1. Minnesota	100 or more returns (start 2001)	<a href="http://www.taxes.state.mn.us/">http://www.taxes.state.mn.us/</a> <a href="http://www.revisor.leg.state.mn.us/slaws/2000/c490.html">http://www.revisor.leg.state.mn.us/slaws/2000/c490.html</a> (Section 289A.08)
2. Wisconsin	100 or more returns (start 2003)	<a href="http://www.dor.state.wi.us/eserv/rule.html#sales">http://www.dor.state.wi.us/eserv/rule.html#sales</a>
3. Michigan	200 or more returns, based on 2003 returns (start 2004)	<a href="http://www.michigan.gov/treasury">http://www.michigan.gov/treasury</a>
4. California	More than 100 returns (start 2004)	<a href="http://www.ftb.ca.gov/professionals/eServices/efile/M_e_file.html">http://www.ftb.ca.gov/professionals/eServices/efile/M_e_file.html</a>

The following states are currently in the Free Filing Alliance

1. Arizona	Joined FFA	<a href="http://www.revenue.state.az.us/e_services/individual.htm">http://www.revenue.state.az.us/e_services/individual.htm</a>
2. Georgia	Joined FFA	<a href="http://www2.state.ga.us/departments/dor/inctax/efile/e1.shtml">http://www2.state.ga.us/departments/dor/inctax/efile/e1.shtml</a>
3. Idaho	Joined FFA	<a href="http://www2.state.id.us/tax/filing_methods.htm">http://www2.state.id.us/tax/filing_methods.htm</a>
4. Massachusetts	Joined FFA	<a href="http://www.dor.state.ma.us/options/options.htm#5">http://www.dor.state.ma.us/options/options.htm#5</a>
5. Michigan	Joined FFA	<a href="http://www.michigan.gov/treasury/1,1607,7-121-1748_1904_2010--,00.html">http://www.michigan.gov/treasury/1,1607,7-121-1748_1904_2010--,00.html</a>
6. Mississippi	Joined FFA	<a href="http://www.msdc.state.ms.us/taxareas/individ/efiling/main.htm">http://www.msdc.state.ms.us/taxareas/individ/efiling/main.htm</a>
7. New York	Joined FFA	<a href="http://www.tax.state.ny.us/elf/free_efile_info.htm">http://www.tax.state.ny.us/elf/free_efile_info.htm</a>
8. Rhode Island <sup>4</sup>	Joined FFA	<a href="http://www.tax.state.ri.us/">http://www.tax.state.ri.us/</a>

\*Vermont dropped their State Free Direct Program due to issues with the vendor being able to perform. Oklahoma paid their vendor for each return and dropped their State Free Direct Program due to budgetary issues.

The following two States offer both, Internet filing and downloadable software to file via modem

1. Kansas	Direct Internet Filing via Interactive Web Session and Downloaded Tax Preparation Software. Return Sent via Modem Direct to State.	<a href="http://www.ksrevenue.org/ecommerce.html">http://www.ksrevenue.org/ecommerce.html</a>
2. New Jersey	Direct Internet Filing via Interactive Web Session and Downloaded Tax Preparation Software. Return Sent via Modem Direct to State.	<a href="http://www.state.nj.us/treasury/taxation/">http://www.state.nj.us/treasury/taxation/</a>

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<sup>4</sup> Rhode Island has not developed a direct filing method

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NetFile Report  
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The following states offer free direct Internet filing

State	Description	Web Address
1. Arkansas	Direct Internet Filing via Interactive Web Session alternative to TeleFile.	<a href="http://www.accessarkansas.org/dfa/taxes/ind_tax/ar_efile/telefile.html">http://www.accessarkansas.org/dfa/taxes/ind_tax/ar_efile/telefile.html</a>
2. California	Direct Internet Filing via Interactive Web Session	<a href="http://www.ftb.ca.gov/online/NetFile/index.html">http://www.ftb.ca.gov/online/NetFile/index.html</a>
3. Colorado	Direct Internet Filing via Interactive Web Session.	<a href="http://www.taxcolorado.com/netfile.html">http://www.taxcolorado.com/netfile.html</a>
4. Connecticut	Direct Internet Filing via Interactive Web Session.	<a href="http://www.drs.state.ct.us/webfileintro.htm">http://www.drs.state.ct.us/webfileintro.htm</a>
5. Delaware	Direct Internet Filing via Interactive Web Session.	<a href="http://www.state.de.us/revenue/InternetPITFiling.htm">http://www.state.de.us/revenue/InternetPITFiling.htm</a>
6. Hawaii	Direct Internet Filing via Interactive Web Session. (Short form only)	<a href="http://www.ehawaii.gov.org/efile/">http://www.ehawaii.gov.org/efile/</a>
7. Illinois	Direct Internet Filing via Interactive Web Session.	<a href="https://www.revenue.state.il.us/EFSI/">https://www.revenue.state.il.us/EFSI/</a>
8. Indiana	Direct Internet Filing via Interactive Web Session.	<a href="http://www.ai.org/dor/tax/index.html">http://www.ai.org/dor/tax/index.html</a>
9. Iowa	Direct Internet Filing via Interactive Web Session. (Short form only)	<a href="http://www.state.ia.us/tax/elf/e-webfil.html">http://www.state.ia.us/tax/elf/e-webfil.html</a>
10. Louisiana	Direct Internet Filing via Interactive Web Session.	<a href="https://webtax.rev.state.la.us/">https://webtax.rev.state.la.us/</a>
11. Maine	Direct Internet Filing via Interactive Web Session.	<a href="http://www.state.me.us/revenue/netfile/fastfile.html">http://www.state.me.us/revenue/netfile/fastfile.html</a>
12. Maryland	Direct Internet Filing via Interactive Web Session.	<a href="http://ifile.marylandtaxes.com/default.asp">http://ifile.marylandtaxes.com/default.asp</a>

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NetFile Report  
Franchise Tax Board

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13. Missouri	Direct Internet Filing via Interactive Web Session.	<a href="https://dors.state.mo.us/tax/webfile/">https://dors.state.mo.us/tax/webfile/</a>
14. Nebraska	Direct Internet Filing via Interactive Web Session. Short form only. (*FTA says site uses software that taxpayer downloads, and then files through a modem. Unable to confirm)	<a href="http://www.revenue.state.ne.us/electron/nol.htm">http://www.revenue.state.ne.us/electron/nol.htm</a>
15. New Mexico	Direct Internet Filing via Interactive Web Session.	<a href="https://ec3.state.nm.us/pitnet/pitinitlogon.asp">https://ec3.state.nm.us/pitnet/pitinitlogon.asp</a>
16. Pennsylvania	Direct Internet Filing via Interactive Web Session.	<a href="https://pa.direct.file.state.pa.us/">https://pa.direct.file.state.pa.us/</a>
17. South Carolina	Direct Internet Filing via Interactive Web Session.	<a href="https://www2.sctax.org/iit/default.asp?PreviousPage=">https://www2.sctax.org/iit/default.asp?PreviousPage=</a>
18. Utah	Direct Internet Filing via Interactive Web Session.	<a href="https://secure.utah.gov/taxexpress/taxexpressweb">https://secure.utah.gov/taxexpress/taxexpressweb</a>
19. Virginia	Direct Internet Filing via Interactive Web Session.	<a href="http://www.tax.state.va.us/individual">http://www.tax.state.va.us/individual</a>
20. Wisconsin	Direct Internet Filing via Interactive Web Session.	<a href="https://ww2.dor.state.wi.us/E24_WITEP/FreeFile/instruction_pg1.html">https://ww2.dor.state.wi.us/E24_WITEP/FreeFile/instruction_pg1.html</a>

**NetFile Report  
Franchise Tax Board**

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**ATTACHMENT 12: Request for Input List**

<b>Who Received the NetFile Report Request for Input?</b>	<b>Was Input Provided?</b>
1. California State Government Affairs	No
2. C & S Solutions	Yes
3. Cal CPA	No
4. California Assembly Honorable Ed Chavez	No
5. California Assembly Honorable Rebecca Cohn	Yes
6. California Senate Senator John Burton	No
7. California Senate Senator Joseph Dunn	No
8. California Society of Enrolled Agents	No
9. Cal-Tax	Yes
10. Citizens Against Government Waste	Yes
11. Computer & Communication Industry Association	Yes
12. Federation of Tax Administrators	No
13. FileYourTaxes.com	Yes
14. H&R Block	No
15. IBM	Yes
16. Intuit	Yes
17. Lenny Goldberg & Associates	Yes
18. Manatt, Phelps & Phillips, LLP	No
19. National Association of Computerized Tax Processors	Yes
20. Petz Enterprises	No
21. Taxworks by Laser Systems	No

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# ATTACHMENT 13: Letter and Questions Requesting Input



STATE OF CALIFORNIA  
**FRANCHISE TAX BOARD**  
PO Box 2229  
Sacramento CA 95827-2229  
Telephone (916) 845-4555 Fax (916) 845-0964

STEVE WESTLY  
Chair  
CAROLE MIGDEN  
Member  
STEVE PEACE  
Member

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July 14, 2003

Dear :

At the April 29, 2003 Franchise Tax Board meeting, Chairman Steve Westly requested a report on NetFile. The report will also include information on the FTB and IRS e-file programs. My staff are currently working on the development of this report, and we need your input.

There are a number of key issues regarding NetFile that must be addressed by the report. These are: *customer service, cost, system failure, liability for taxpayer data, and the IRS' Free File Alliance.*

The attached document lists a series of questions related to the key areas mentioned above. It would be appreciated if you would craft your comments in the form of answers to these questions. All timely-received written comments will be included in the appendices to the report. You will note that some of the questions focus on issues specific to the tax preparation software industry. Even if you do not represent a software company, we welcome your comments on these topics.

I would appreciate receiving your comments by August 11, 2003. Please forward them to me via e-mail at [lisa.crowe@ftb.ca.gov](mailto:lisa.crowe@ftb.ca.gov). Or, if you prefer, mail your comments to:

Franchise Tax Board  
Lisa Crowe, Chief, Filing Division  
PO Box 2229  
Sacramento, CA 95827-2229

If you need more information, please contact me at (916) 845-4555.

Sincerely,

Lisa Crowe  
Chief, Filing Division

Enclosure

cc: Hon. Steve Westly  
Hon. Carole Migden  
Hon. Steve Peace



**I. Customer Service**

1. NetFile offers a “citizen-to-government” e-filing experience. From your perspective, should taxpayers have the option of submitting their tax return information from their home computers directly to the FTB? Please explain.
2. Since the implementation of NetFile in April, the FTB’s customer service impact relative to this new program has been minimal. Describe any issues or concerns you may have with respect to the FTB providing customer service for NetFile.

**II. Cost**

1. FTB staff reported that costs for the development of NetFile are roughly \$100,000 per form. These costs are relatively low due to the FTB’s ability to leverage the existing e-file platform, which has been in place for a number of years. Prior to and at the April 29 board meeting, the media and testimony suggested that NetFile costs were much higher. Please share any comments or information you may have about these differences.

**III. System Capacity and System Failure**

1. Concerns have been expressed regarding the state’s ability to provide sufficient capacity to meet demand for electronic filing. At the April 29 board meeting, the FTB explained that capacity issues experienced on April 15 were related to downloading blank tax forms, but the ability to accept all electronically filed tax returns was not impacted. If you have a concern about the FTB’s ability to provide sufficient system capacity for NetFile, please explain.
2. Has your company experienced “down-time” on your website? Has it had an impact on taxpayers? If yes, please describe.

**IV. Liability for Taxpayer Data (Security, Disclosure, Confidentiality, and Risk)**

1. NetFile was developed using security models and standards similar to those used in the private sector. Describe any issues or concerns you have with regard to the FTB’s ability to safeguard taxpayer information in relation to its NetFile program. Also, please describe any issues your company has experienced in safeguarding taxpayer information.
2. The FTB’s use of information that it obtains from taxpayers is strictly governed by law. For commercial e-file products, should information taxpayers provide in completing their returns be available for nontax purposes? Please explain.

Request for Input  
Report to the Franchise Tax Board

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3. Should the State of California have a role in regulating the electronic tax preparation industry with regard to security and privacy? Please explain.

**V. Free File Alliance**

1. Describe any significant advantages for taxpayers that the Free File Alliance has over NetFile. Describe any significant advantages for taxpayers that the Free File Alliance has over FTB's existing Memorandum of Agreement Program for free e-file offerings.
2. Over the last three years, the FTB has averaged 24% growth in the number of online returns received. If the FTB participated in the Free File Alliance at the state level for the 2003 tax year, what greater growth of *new* online *state* returns would you expect from California? Please include your methodology for determining the increase.
3. NetFile provides basic math and tax look-up features, and is currently available for the more simple tax returns. Is there any segment within the taxpayer population that you feel NetFile is appropriate for? Please explain.

**Other Information**

Please feel free to provide any other information, concerns, suggestions, or alternatives with respect to NetFile and the Free File Alliance.

**ATTACHMENT 14: Input from Respondents**

**CALTAX**

**Reponse to Request for Input on NetFile  
and Further Expansions on the E-filing system.**

**Customer Service**

Unfortunately your question is more a statement than inquiry. The premise, that NetFile offers a “citizen-to-government” e-filing experience, which ostensibly some other public-private partnership (the Free File Alliance for example) cannot, is illusory. Realistically whether there is an intermediary between the taxpayer filing a return and the actual server of the Franchise Tax Board receiving that data is superficial. An argument proffered for no other reason than to buttress the support for an expensive government entry into a commercial venture funded at taxpayers’ expense. Taxpayers filing their returns want a safe, easy, efficient and inexpensive means for electronically filing their returns. Inexpensive whether paid at the time of filing or funded through their other tax obligations.

Is this a question or a statement? The customer service impact of the NetFile program should be minimal as it currently includes only the most basic forms for filing and has not had significant penetration of use among taxpayers.

**Cost**

There are several components to the cost element that the FTB appears unwilling to recognize. First and foremost, the entire program is duplicative of what can be secured through a public private partnership, such as the Free File Alliance. Many other states and the federal government have already realized this. Regardless of whether this program costs tens of millions of dollars or hundreds of millions of dollars to develop and support, it is intended to duplicate what is already available in the private sector at a significantly higher net cost to taxpayers. The veracity of the estimated costs of the FTB program have been challenged because they appear out of alignment with prior estimates and the experience of other states and the federal government. The estimated cost for the development of the 540 2-EZ was estimated at \$500,000 for that single form four years ago. It is our understanding that the State of Virginia, a much smaller state than California, estimated their e-filing program would cost \$123 million to develop. The IRS estimated that having an electronic filing system for its EZ returns would have been at a minimum \$30 million in the first year. Why would we expect California’s experience with a State run software enterprise to be any different?

Aside from the sheer magnitude of the cost, taxpayers want to know why a state funded commercial enterprise is necessary at all when private sector alternatives are already available to be leveraged to the benefit of all taxpayers.

**System Capacity and System Failure**

System capacity is one more example of redundancy being funded at taxpayers’ expense. We have little doubt that the FTB will learn from its capacity problems of April 15<sup>th</sup> of this year and expand their enterprise to meet future needs. The question for taxpayers is why

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are we funding the redundancy when the program can be more efficiently and effectively provided by the private sector?

This statement certainly reflects the reality that everyone with a web presence experiences difficulties in keeping that system running 24-7. The difference is that the significant resources being diverted from other state programs to fund the FTB's new enterprise is a duplication of effort and simply not necessary to achieve the goals of e-filing. Those companies truly reliant on their net-presence take great steps to ensue that their connection with their customers is fail safe. Duplication of that effort in this instance is simply too costly and unnecessary for California's taxpayers to have a cost effective and efficient e-filing system.

#### **Liability for Taxpayer Data (Security, Disclosure, Confidentiality and Risk).**

This statement reflects yet another layer of duplication of effort funded by taxpayers that is totally unnecessary. We do not regularly handle data which needs to be secured in the manner that a taxpayer's return data needs to be secured and so cannot provide any incite into similar experiences. However, the exposure private company's face by law suit and to their customer goodwill ensures that they make every effort to secure that information from intruders. What is the ultimate sanction against a tax agency's (or any government agency for that matter) disclosure of that information? There are no consequences and no remedies for those whose privacy has been violated. In fact, one might argue that a direct government to taxpayer e-filing program is a far greater threat to a taxpayer's freedom and privacy than that of a private sector business.

Stating that the FTB's use of taxpayer information is "strictly governed by law" means nothing. Ask Gil Hyatt about the use of taxpayer information by the state's taxing agencies during his audit. Ask about the disclosure of taxpayer social security numbers on a past FTB mailer. The use of information between private sector companies and their customers can be resolved by contract between them or where necessary state law. However, no private sector company has the ominous police power by which such information can be used for abuse of taxpayers like is possessed by the State. Private sector companies largely have marketing and the sale of their products as their goal. What is the goal of the State's tax agency?

#### **Free File Alliance**

What are the most significant advantages of the Free File Alliance over NetFile? Cost, efficiency, effectiveness. The Free File Alliance achieves all the objectives of e-filing without the duplication. The Free File Alliance promotes competition which ensures better customer service and a better product for taxpayers to use to file their taxes with.

Government enterprise has proven historically inefficient, unresponsive, and extremely costly. Government enterprise should be pursued only when necessary and where there is no reasonable alternative to achieve the goal. Neither is the case here.

We will leave expectations of growth by use of the free file system to others more directly involved.

NetFile is duplication. If the universe of e-filing can be covered more efficiently, more effectively and at a lower cost that is or will be provided by a private sector alternative, it is not appropriate for use at all.

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### **Other Information**

**E-filing is an important element in the cost effective administration of tax in California. The sole question surrounding for us in this debate is why the Franchise Tax Board sees as necessary a taxpayer funded enterprise to compete with what can already be provided more efficiently, more effectively and ultimately cheaper to taxpayers by the private sector. Government enterprise has repeatedly proven less reliable, less efficient, at significantly higher cost than can be provided in a competitive market. Why should we expect this instance to be any different?**

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**Rebecca Cohn**

Dear Mr. Westly,

This letter is in response to the survey regarding e-filing issues and options which was sent to me by Ms. Lisa Crowe of the Franchise Tax Board staff. While the survey was more oriented towards members of the high-tech industry, I appreciate the opportunity to provide input on this very important issue. I also appreciate the more open and common sense approach that the newly elected members of the Board have taken on this issue.

As you may know, I have in the past expressed concerns over the methods used by the FTB staff to implement e-filing initiatives. Prior to your becoming a member of the Board, the previous Board had often taken premature steps without significant public input and without providing the Legislature information with which to perform appropriate oversight of their efforts.

The result of those efforts has been a system which did not perform well during this year's tax season, is duplicative of other federal and private sector initiatives and does not protect taxpayer privacy in appropriate ways. However, it is important that I indicate to you that I am not opposed to e-filing. It could, if implemented properly, be a great assistance to California taxpayers. My concerns lie in the methods and means used by FTB staff to implement our current e-filing system and flaws contained in the current system.

Below are my specific comments (in which I have attempted to respond to the issues presented in the survey):

**1. SYSTEM RELIABILITY**

It has been widely reported that the e-file system expansions implemented by the FTB staff just prior to April 15<sup>th</sup> of this year resulted in the system actually being down for several hours on the most critical day of the tax year, April 15<sup>th</sup>. My concern, beyond the obvious disservice to California residents, is that a State agency is again moving forward, expending State revenues on an information technology system and not getting it right.

We have had example after example of State agencies expending huge sums to develop systems which end up being flawed and provide limited service to the taxpayers who fund them. In this case, despite my many attempts to get detailed specific information from FTB staff about both the technical efforts being made (software development, servers, etc.) as well as costs incurred, I have yet to receive straightforward, detailed responses from the staff.

As Chair of the Joint Legislative Audit Committee, the lack of response from the FTB staff has led me more and more to believe that they are either unwilling to share such information or, even worse, do not know. I would hope that this letter will result in a complete, detailed response as to what caused the system reliability problems on April 15<sup>th</sup>.

**2. COSTS**

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## NetFile Report Franchise Tax Board

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In the past, I have made several inquiries and requests of the FTB staff to provide information relative to costs incurred in development of the current e-file system. For the most part my requests have lacked any response. I did receive a limited response from Mr. Goldberg last December, which among other things included a table yet it was barely legible. The document purported to give me information relative to personnel years. When I requested a more legible copy, I was sent one which was hardly more legible!

My staff has attended prior FTB meetings (last year) during which FTB staff testimony gave varied responses to questions regarding costs of development, implementation and maintenance of the current system. I understand that the current information from FTB staff is that development costs will be approximately \$100,000 per form, plus only \$5,000 per year for maintenance. Is this accurate? What does this entail? Engineering? Page design? Testing? Tech support? Infrastructure? Servers? What staffing arrangements were made in order to accommodate the project? In previous conversations with staff, it was expressed that no additional staff would be needed? How was that made possible?

What I would really appreciate is an easily understood, sufficiently detailed, answer to these questions. Answers which so far, the FTB staff have been unwilling to give. In light of recent criticism of the FTB staff by the State Bureau of Audits, I would hope that the FTB staff would be more forthcoming and cooperative with Legislative inquiries.

Despite a lack of reliable information, this issue raises a very major question: In light of our current State Budget situation, is it prudent to be contemplating expansion of any program, despite its promise of limited future savings? At a time when we must be considering cuts of very critical programs, would it not be more prudent, and a more justifiable allocation of resources to suspend any further expansion of e-filing systems until the State is in a more financially secure position and the system can be more fully reviewed?

### 3. PRIVACY CONCERNS

One major concern I have consistently expressed regarding the current e-filing system is its inherent taxpayer privacy flaws. The online nature of the system requires taxpayers to be online with the FTB website during the entire time they are preparing their tax returns. As a result, the FTB has access to all of the Taxpayer's drafts, incomplete information, etc. DOESN'T THIS VIOLATE IMPORTANT TAXPAYER PRIVACY RIGHTS?

Why wasn't the system developed with a downloadable format, so that a taxpayer could simply download tax forms, fill them out at their leisure, and then electronically file them with the FTB? This improvement would greatly increase taxpayer privacy and result in greater usage.

### 4. FREE FILE ALLIANCE

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NetFile Report  
Franchise Tax Board

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In the time since the previous Board members supported the current expansion of the e-filing system a significant development has occurred, which could render the current direction both obsolete and user UNFRIENDLY. That development is the implementation of the federal government's Free File Alliance for use in filing federal income tax returns.

The Free File Alliance relies on a public-private sector partnership which takes advantage of existing private sector technology and gives the taxpayer a free of cost method for filing federal income tax returns. Since it's implementation last summer by the Internal Revenue Service, the system been reliable and, I understand, resulted in many millions of taxpayers filing their returns electronically.

More importantly, from the perspective you are currently considering, many states have chosen to abandon their singular approach to e-filing and utilize the Free File Alliance system for e-filing in their state. This approach offers the taxpayer a similar system for filing both FEDERAL AND STATE income tax returns, a significant benefit, and avoids the cost associated with the state's establishing their own system.

I strongly urge you to fully research the Free File Alliance and adopt such an approach for California, thereby giving California taxpayers greater convenience and saving depleted State financial resources.

Thank you for giving me the opportunity to respond to the survey and provide you my input. I look forward to participating in any further meetings and discussion you might schedule on this issue and look forward to your response.

Sincerely,

Rebecca Cohn

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**Intuit**

**RESPONSE ON BEHALF OF INTUIT INC**

**Customer Service**

- 1.) NetFile offers a “citizen to government” e-filing experience. From your perspective, should taxpayers have the option of submitting their tax return information from their home computers directly to the FTB? Please explain.

Throughout this response when we refer to electronic filing or e-filing we are specifically talking about the act of submitting a finalized tax return to the FTB and when we talk about preparing a return we refer to the act of completing a tax return and determining actual tax liability. “Electronic Filing” and “Electronic Tax Preparation” are different functions and processes. As such, we refer to them here as separately identified functions, rather than confusing these processes and misusing the term “e-filing”.

Overall, taxpayers have many different options for preparing their tax returns to determine their individual tax liability. Approximately 50% of all taxpayers choose to pay professionals to prepare and/or e-file their returns for them. This year, our professional products, ProSeries<sup>®</sup> and Lacerte<sup>®</sup>, accounted for over 904,400 e-filed California returns.

Of the remaining ~50% who self prepare their returns, multiple companies offer free online tax preparation and e-filing services for those in need of assistance – particularly the working poor, disadvantaged and underserved, including those adversely affected by the Digital Divide and those eligible for the Earned Income Tax Credit. In 2002, Intuit alone provided free online State tax preparation and e-filing services to over 90,000 Californians at no cost to individual taxpayers or the California public treasury through our Intuit Tax Freedom Project<sup>SM</sup>. We are proud to have helped the state save money by converting paper filers to e-filers.

For those who can afford to pay for their return self-preparation and e-filing, taxpayers already have numerous convenient options available. The typical online tax preparation service offered by the private sector already includes electronic filing at no charge, and has done so as a fairly standard industry practice for many years. Intuit’s consumer tax products, TurboTax<sup>®</sup> and TurboTax<sup>®</sup> for the Web<sup>SM</sup>, accounted for over 640,600 e-filed returns year to date, *in addition to* the 90,000 donated returns mentioned above.

- 2.) **Since the implementation of NetFile in April, the FTB’s customer service impact relative to this program has been minimal. Describe any issues or concerns you may have with respect to the FTB providing customer service for NetFile.**

NetFile Report  
Franchise Tax Board

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It is our understanding that the FTB must attempt to answer all questions received by the agency with a fixed number of support staff and services. Therefore, additional call volumes generated by any new service, such as NetFile, will inevitably result in some number of these additional taxpayers not having their question answered by the FTB – or in bumping other taxpayers who have tax-related questions.

As the NetFile service offers tax preparation and e-filing to California citizens, not being able to answer a question may very well result in a taxpayer either not self-preparing or e-filing their return, or doing so without confidence or accuracy.

Since NetFile only provided services to 10,000 taxpayers out of over 6 million eligible Californians, or less than 1% of those eligible, it would have been very surprising if the customer service impact had been substantial this year. However, given that the FTB's stated purpose for the project is to dramatically increase the volume of returns processed through NetFile (a minimum 13-fold increase just to offset the FTB's own limited cost estimates), the volume of customer service requests will expand in parallel. In fact, if volume increases are not adequately anticipated and built into the hardware and software architecture, there will be a disproportionate increase in unanswered customer service calls relative to the volume increase.

Furthermore, the nature of customer service contacts changes depending on the services that are offered. Offering online tax preparation and e-filing services will result in many questions from taxpayers of a far more technical nature related to the service provided, as opposed to more general questions about their tax liability or filing deadlines.

On a going forward basis, what kind of future customer assistance investment has the FTB made in order to service its planned expansion? How is customer assistance being integrated into the existing infrastructure? Since peak volume capacity needed for the online tax preparation service was not considered in planning the systems for this past tax season, has scalability of customer service been considered for the future systems usage expansion? Has there been or will there be call center training on how to answer questions about operating system incompatibility, log-in problems, corrupt data files, e-file confirmations, etc.? How are these customer service requirements factored in to the FTB's cost estimates for running the NetFile program?

## Cost

- 1.) **FTB staff reported that costs for the development of NetFile are roughly \$100,000 per form. These costs are relatively low due to the FTB's ability to leverage the existing e-file platform, which has been in place for a number of years. Prior to and at the April 29 board meeting, the media and testimony suggested that NetFile costs were much higher. Please share any comments or information you may have about these differences.**
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We now understand that the FTB staff utilized an accounting method which only looked at selected, incremental costs and does not account for all of the potential direct and indirect costs of designing, building, hosting, operating, growing and maintaining an online tax preparation and e-filing business. To assist the FTB in providing clarity on what was included and what was not included in their cost estimates of the NetFile system, we are attaching a separate document that attempts to outline the many categories and subcategories of spending that a business would take into consideration when deciding whether to add or expand a new product or online service.

### **System Capacity and System Failure**

- 1.) Concerns have been expressed regarding the state's ability to provide sufficient capacity to meet demand for electronic filing. At the end of the April 29 board meeting, the FTB explained that the capacity issues experienced on April 15 were related to downloading blank forms, but the ability to accept all electronically filed tax returns was not impacted. If you have a concern about the FTB's ability to provide sufficient system capacity for NetFile, please explain.**

If an overloaded system has not been designed to anticipate peak loads during peak times of the tax season, the kinds of problems experienced on April 15 are inevitable. There has been very little information shared as to what the FTB's anticipated volumes are, year over year, and how NetFile was designed (top to bottom) to prepare for those volumes – so, it is hard to evaluate whether the FTB is prepared or not, except to look at previous history. The FTB has enabled the downloading of blank forms for many years and yet was not able to sufficiently design for scale to handle the peak on April 15.

NetFile introduces new functionality and interactive capability with the taxpayer and their most sensitive personal information, which adds new complexity, higher risk, and higher stakes for failure. Given the performance issues experienced by taxpayers this year with the pilot system, we are concerned that the FTB may not have the expertise to address the scalability question on a system it has never tried or used before and the cost of addressing it properly will significantly increase the cost of the FTB system.

### **Liability for taxpayer Data (Security, Disclosure, Confidentiality and Risk)**

- 1.) NetFile was developed using security models and standards similar to those used in the private sector. Describe any issues or concerns you have with regard to the FTB's ability to safeguard taxpayer information in relation to it's NetFile program. Also, please describe any issues your company has experienced in safeguarding taxpayer information.**

Other than stating that 128-bit encryption has been used, we have not received any other information to verify the assertion that NetFile meets security models and standards utilized by industry. While Intuit supports and uses 128-bit encryption itself, we recognize this is just one element of the many elements that must be considered for

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security of a Web-based application. More specific questions or answers could be provided if we knew more about how the NetFile system was designed.

Intuit has developed multiple layers of security, which were designed into our hardware, network, software and other systems. Security accounts for a significant portion of our engineering costs and our design and implementation includes 3<sup>rd</sup> party testing and audits. The cost infrastructure attachment provides other examples of security which should be considered by the FTB for its NetFile system.

**2.) The FTB's use of information that it obtains from taxpayers is strictly governed by law. For commercial e-file products, should information taxpayers provide in completing their returns be available for nontax purposes? Please explain.**

Strict laws already govern commercial tax preparation and e-file, and sharply restrict any service providers' use of any information obtained from taxpayers. Intuit goes to great lengths to comply with these laws and regulations. Private sector companies have enormous financial and legal incentives to operate consistent with the law, or customers will choose a different commercial provider who does.

Taxpayers have no recourse if they do not agree with how the FTB uses their personal financial information, whether permitted by law or not.

**3.) Should the state of California have a role in regulating the electronic tax preparation industry with regard to security and privacy? Please explain.**

The relevance of the question in the context of determining the future of the NetFile pilot is unclear.

## **Free File Alliance**

**1.) Describe any significant advantages for taxpayers that the Free File Alliance has over NetFile. Describe any significant advantages for taxpayers that the Free File Alliance has over FTB's existing Memorandum of Agreement Program for free e-file offerings.**

The private online tax services provided to citizens for free through the Free File Alliance are performed entirely at private expense, and no costs are charged against the public treasury. Therefore, those states with Free File Alliance agreements only spend taxpayer money on those unique and critical needs of citizens which only government can perform or provide instead of duplicating services provided by the private sector.

Performed entirely outside of government, the Free File Alliance services are provided privately and independently for the benefit of the citizen, which avoids any

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taxpayer concern that their tax information could be compromised by any of the revenue collection goals and objectives of any government tax agency and removes the conflict of interest of the revenue agency serving the multiple roles of tax regulator, collector, compliance enforcer and auditor *as well as tax preparer*.

The Free File Alliance model is predicated upon a public-private partnership wherein private sector companies make long-term commitments to donate commercial services to economically disadvantaged and underserved taxpayers in exchange for a bilateral commitment from the government to refrain from developing duplicative e-commerce systems with which to compete in the commercial marketplace for tax preparation services and products. This has the effect of stimulating continued investment and innovation, thus ensuring competitive options and free choice for taxpayers, while saving public treasuries a great deal of money.

The existing Memorandum of Agreement Program for free e-file offerings provides no incentive for private sector companies to provide the donated services in the face of a competing product fielded by the government and funded by taxpayer dollars.

**2.) Over the last three years, the FTB has averaged 24% growth in the number of online returns received. If the FTB participated in the Free File Alliance at the state level for the 2003 tax year, what greater growth of new online state returns would you expect from California? Please include your methodology for determining the increase.**

It is unclear how many of the 10,000 returns claimed by the NetFile system for this past tax season would not have been eligible for free preparation and e-filing services from any of the companies donating services, and therefore represent true incremental growth generated through this expenditure of public funds. There is therefore a significant risk of comparing apples to oranges in how the FTB staff utilizes the private sector response to this question. For example, how many of the 10,000 returns were eligible to use the free services provided by Intuit, which were used by over 90,000 Californians this year? Intuit could have provided those e-filed returns at zero cost to the state.

It is important to note that the FTB has experienced excellent growth in online filing as a result of the efforts and contributions of the private sector companies that have participated in the online filing program both commercially and by donating services through philanthropic programs. Such voluntary public service programs have resulted in more than one million free electronic returns and e-filings in recent years. The FTB actions also discourage these companies from working with the FTB to create innovative cooperative marketing programs to drive further e-filing growth, building on the success of the past.

**3.) NetFile provides basic math and tax look-up features, and is currently available for the more simple tax returns. Is there any**

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**segment within the taxpayer population that you feel NetFile is appropriate for? Please explain.**

For all the reasons cited above, we feel the FTB should withdraw NetFile and save the public treasury of California any further expenditures for this program, and instead work creatively and cooperatively with the private sector to address the needs of California taxpayers and the e-filing goals NetFile was intended to satisfy.

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**Lenny Goldberg**

**I. Customer Service**

1. NetFile offers a “citizen-to-government” e-filing experience. From your perspective, should taxpayers have the option of submitting their tax return information from their home computers directly to the FTB? Please explain.

We have long been committed to making filing as easy as possible, as well as free. Tax filing from a the home computer should be the basis of a NetFile program.

2. Since the implementation of NetFile in April, the FTB’s customer service impact relative to this new program has been minimal. Describe any issues or concerns you may have with respect to the FTB providing customer service for NetFile.

We would hope that turnaround time and notification for any errors or omissions would be far faster than on hard copy. We would hope that if there are problems with filing, and a good faith effort to file, that provision be made that does not penalize the customer for late filing in the case of good faith errors, computer failure, or any jamming up of the system, within a reasonable time frame.

**II. Cost**

1. FTB staff reported that costs for the development of NetFile are roughly \$100,000 per form. These costs are relatively low due to the FTB’s ability to leverage the existing e-file platform, which has been in place for a number of years. Prior to and at the April 29 board meeting, the media and testimony suggested that NetFile costs were much higher. Please share any comments or information you may have about these differences.

I fully trust your numbers with regard to development costs. The issue is the extent to which benefits outweigh costs.

**III. System Capacity and System Failure**

1. Concerns have been expressed regarding the state’s ability to provide sufficient capacity to meet demand for electronic filing. At the April 29 board meeting, the FTB explained that capacity issues experienced on April 15 were related to downloading blank tax forms, but the ability to accept all electronically filed tax returns was not impacted. If you have a concern about the FTB’s ability to provide sufficient system capacity for NetFile, please explain.

As mentioned above, I would hope that if there is a capacity problem, there would be some leeway with regard to filing within a few day’s timeframe.

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2. Has your company experienced “down-time” on your website? Has it had an impact on taxpayers? If yes, please describe.

Not applicable.

**IV. Liability for Taxpayer Data (Security, Disclosure, Confidentiality, and Risk)**

1. NetFile was developed using security models and standards similar to those used in the private sector. Describe any issues or concerns you have with regard to the FTB’s ability to safeguard taxpayer information in relation to its NetFile program. Also, please describe any issues your company has experienced in safeguarding taxpayer information.

Concerns: tax data is very sensitive, tying lots of information to social security numbers. So the highest level of security will be necessary. We are confident that FTB never uses or gives out any data it has developed, although our confidence does not extend to some private sector companies.

2. The FTB’s use of information that it obtains from taxpayers is strictly governed by law. For commercial e-file products, should information taxpayers provide in completing their returns be available for nontax purposes? Please explain.

The bill which we worked on with Senator Dunn should provide the strictest standards of data use and is also governed by law. The information cannot be used without taxpayer permission. My concern is the extent to which that restriction is enforced and enforceable, in the light of comments made by the CEO of HRBlock with regard to their vast data base of taxpayers. By law, that should not include California taxpayers.



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Should the State of California have a role in regulating the electronic tax preparation industry with regard to security and privacy? Please explain.

The state has already passed statute on the subject, and definitely has a role. The question is how the state enforces and regulates—i.e. upholds the law. One of the primary concerns of filing through a proprietary firm is the privacy of that information, and the state should make sure that privacy is enforced.

**V. Free File Alliance**

1. Describe any significant advantages for taxpayers that the Free File Alliance has over NetFile. Describe any significant advantages for taxpayers that the Free File Alliance has over FTB's existing Memorandum of Agreement Program for free e-file offerings.

Presumably, their programs give more advice and have more tax preparation capability.

2. Over the last three years, the FTB has averaged 24% growth in the number of online returns received. If the FTB participated in the Free File Alliance at the state level for the 2003 tax year, what greater growth of *new* online *state* returns would you expect from California? Please include your methodology for determining the increase.

I think this depends in part on outreach and accessibility, which includes web-based notification of availability.

3. NetFile provides basic math and tax look-up features, and is currently available for the more simple tax returns. Is there any segment within the taxpayer population that you feel NetFile is appropriate for? Please explain.

Basic wage and salary earners and itemizers—not likely schedule C filers and others who are more complex and probably have accountants in any case, or those with complex asset management.

**Other Information**

Please feel free to provide any other information, concerns, suggestions, or alternatives with respect to NetFile and the Free File Alliance.

Keep the goals in mind: simple, straightforward and free for all taxpayers who want to file directly.

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**Customer Service**

**eSmartforms.com**

NetFile offers a “citizen-to-government” e-filing experience. From your perspective, should taxpayers have the option of submitting their tax return information from their home computers directly to the FTB? Please explain.

A “citizen-to-government” direct e-file experience is definitely right in principle, but I believe the selection of the specific experience is very debatable.

How much should the government do?

Ideally, a direct, government (any level) to citizen communication could be most effective, accurate and cost effective. There are many different communications taking place between citizen (business) and government. All can be a direct, electronic experience.

Tax returns are important, but also the most complex tasks. I believe there are many other applications that can be made into “direct” experiences and probably better candidates than tax returns.

Since the implementation of NetFile in April, the FTB’s customer service impact relative to this new program has been minimal. Describe any issues or concerns you may have with respect to the FTB providing customer service for NetFile.

“Customer service” needs to be carefully defined and the time from April to now is too short to reveal any significant problem.

In my opinion, management of any operation decides on what level of customer service to deploy. As a business for example, the management may choose to provide a limited level of service that would reduce its cost by 80% while lose 10% of its business. Can FTB provide a certain level of service that satisfy some taxpayers or is it necessary for FTB to provide an absolute level of service? What is the cost of the last 5% of perfection in service?

**Cost**

FTB staff reported that costs for the development of NetFile are roughly \$100,000 per form. These costs are relatively low due to the FTB’s ability to leverage the existing e-file platform, which has been in place for a number of years. Prior to and at the April 29 board meeting, the media and testimony suggested that NetFile costs were much higher. Please share any comments or information you may have about these differences.

It is possibly true that the development cost per form is not very high, though I believe much higher costs are in operation, service and problem resolution. It is probably unreasonable to believe a \$100,000 investment can turn into an efficient website that can perform hundred thousands or even millions of tax return preparation and e-file. (this would have been a tremendously profitable business.)

If this were feasible, all online software companies, big and small, are proven very inefficient (or even stupid) to have not been able to do likewise. We would have expected a lot more new entries into such high return business over the years.

Of course, at this time, we can’t say it is totally not possible that the cost is extremely low at FTB. Though my personal experience would suggest that the cost is proportional to the scale. As the

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number of users increase, problems (software, system, process, communication, etc.) will all escalate proportionally.

### **System Capacity and System Failure**

Concerns have been expressed regarding the state's ability to provide sufficient capacity to meet demand for electronic filing. At the April 29 board meeting, the FTB explained that capacity issues experienced on April 15 were related to downloading blank tax forms, but the ability to accept all electronically filed tax returns was not impacted. If you have a concern about the FTB's ability to provide sufficient system capacity for NetFile, please explain.

Again, issues should be clearly defined:

Running and maintaining the web application is different from accepting e-filed returns, unless the returns are specifically referring to returns prepared at FTB site. But we know the number of returns filed is small (tens of thousands?), it is not a significant stress test on the system, software or the process. What happens when millions try to get on and prepare at the same time? Every problem can be resolved over time with money, but one can't use the few days and a small number as a proof of no problem. (For example, for C&S to claim we can handle the kind of volume Intuit does with our current system/software because we did not have problem with our current volume is really a stretch. We like to believe we could, but general experiences will probably not agree.)

Has your company experienced "down-time" on your website? Has it had an impact on taxpayers? If yes, please describe.

Every website will probably experience "down-time", some scheduled and few may be unexpected. Depending on the design and redundancy of the system, every business takes its acceptable level of risk. Taxpayers will always be impacted. If disaster strikes at the most critical time (4/15, e.g.), the result is reflected on the bottom line of the business.

### **Liability for Taxpayer Data (Security, Disclosure, Confidentiality, and Risk)**

NetFile was developed using security models and standards similar to those used in the private sector. Describe any issues or concerns you have with regard to the FTB's ability to safeguard taxpayer information in relation to its NetFile program. Also, please describe any issues your company has experienced in safeguarding taxpayer information.

Can NetFile protects taxpayer information? of course, with resources and over time.

Could NetFile have problem with security, risk, etc.? absolutely. Over the years, even big companies like HR had very publicized security incidents.

Again, each company does its own things to protect its information and to be in compliance with the law and regulation. For example, we use SSL, Firewall, internal

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architecture to protect information in processing, and many procedures, processes, system for data backup, security, disclosure, confidentiality and any other concerns. Is it 100%, absolutely perfect? We hope so, but one never knows.

The FTB's use of information that it obtains from taxpayers is strictly governed by law. For commercial e-file products, should information taxpayers provide in completing their returns be available for nontax purposes? Please explain.

We obey the IRS regulations such that we do not use taxpayers for anything other than preparing returns and e-file. For us to avoid potential problems, we do not offer RAL or any other financial services.

Taxpayer information includes name, e-mail, SSN, address, income, expense and many more in tax returns. We do not use any of them for other purposes, though we do not believe it is in the best interest of taxpayers to strictly forbid any use of any of the information either. Some product introduction, marketing may be appreciated by some taxpayers sometime.

Overall, we believe tight restrictions should be put on taxpayer tax information, but not on the more generic information (e-mail, name, e.g.).

Should the State of California have a role in regulating the electronic tax preparation industry with regard to security and privacy? Please explain.

Security and Privacy are critical to the reputation and success of a business in this field. To meet business growth objective and self-preservation, a business will treat both seriously. At the same time, CA should define the ground rules for maximum protection.

### **Free File Alliance**

Describe any significant advantages for taxpayers that the Free File Alliance has over NetFile. Describe any significant advantages for taxpayers that the Free File Alliance has over FTB's existing Memorandum of Agreement Program for free e-file offerings.

Over the last three years, the FTB has averaged 24% growth in the number of online returns received. If the FTB participated in the Free File Alliance at the state level for the 2003 tax year, what greater growth of *new* online *state* returns would you expect from California? Please include your methodology for determining the increase.

FTB probably need to make a projection of the growth rate with the NetFile and possibly reduced "free files" from software industry (because private software companies will be either out of business or increase price to recover the loss of business, both contribute to possibly reduced e-file). For example, ask software company a question – are they likely to increase free e-file with the CA NetFile or decrease free e-file with the NetFile? Is NetFile encouraging and adding to e-file, or mostly taking business away from private business and reducing choices for CA taxpayers.

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NetFile provides basic math and tax look-up features, and is currently available for the more simple tax returns. Is there any segment within the taxpayer population that you feel NetFile is appropriate for? Please explain.

The question is not which segment, rather should the FTB be in the mix at all.

**Other Information**

Please feel free to provide any other information, concerns, suggestions, or alternatives with respect to NetFile and the Free File Alliance.

# FileYourTaxes.com

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August 11, 2003

Lisa Crowe  
Chief, Filing Division  
Franchise Tax Board  
Post Office Box 2229  
Sacramento, CA 95827-2229

Lisa,

Thank you for your request for information regarding the Franchise Tax Board's (FTB's) competitive OnLine tax service that has been developed in various phases over the previous years.

As had been indicated in various past conversations and communications, our belief is that such business developments by government agencies are wasteful and do not provide an economic value or service to the taxpayer, who ultimately pays for this service. In the last few years, in response to specific requests of the Controller, the Industry provided free services to the California taxpayers. Further, official Memorandum Of Understanding was established between the State and the Industry which, indicated that the State would not assume a competing posture by entering into the tax preparation business and to this end the Industry dedicated a shareware program for the taxpayers to obtain from the Industry members, as well as the FTB that would convey the completed basic form to the FTB directly. For some reason unknown to us, such understandings were trampled and the business entity was formed by the FTB.

Our understanding is that the most recent cost of this business entity was in the neighborhood of \$1,000,000 to the California taxpayers. The yielded number of returns for this price tag was approximately 35,000 in number. Not considering the previous significant spending that has surely contributed to the deficit of our state, it appears that the cost of each return was approximately \$30.00. The most effected taxpayers, to which these returns were directed, normally have a tax rate of 1%. This means that FTB is subjecting these low income tax filers to earn \$3,000.00 so that they can pay enough tax to get a free tax return from the State. We think that these taxpayers should be earning these monies, not to pay to the State for a free tax return but to spend on their families and children. Industry was already providing this service. As a matter of fact, prior to the FTB's entry into the tax preparation business, the Industry provided free services to such taxpayers. The cost to the State or the taxpayer was nothing; both preparation and eFiling were absolutely free! As you well know, before the Industry withdrew their offers so as not to compete with the FTB, the number of free eFiled returns was well over 100,000. We do not understand the logic of such a move by the FTB, trying to get fewer returns while needlessly spending the ever so valuable tax dollars. If this is representative of the State's spending philosophy, it's very clear why we are endowed with biggest budget deficit of any state in history.

Many states that enjoyed significant windfalls in the Nineties with the economic growth based on the personal computer related industry development, presumed that they would continue to be able receive yet greater future amounts and felt that with such free capital, establishing small businesses within themselves were justifiable. Now we are seeing states like Massachusetts, Idaho and potentially others

deviating from this misguided, unnecessary and potentially abusive expenditure of tax dollars. We are seeing the taxpayers, from Tennessee to both oceans rebelling against such spending.

The Industry understands the plight of the tax jurisdictions' and the necessity of reducing the cost of the processing of paper returns. We act upon this understanding individually or collectively such as in the case of the Free File Alliance, LLC. We feel that a similar formation was in place for the FTB until the previous Controller de facto voided all of the sincerely gained grounds to benefit the California taxpayers. It may be that a "glass ceiling" exists for the eFiling as it exists to day. For instance, the Internal Revenue Service thinks that they will not achieve their 80% goal. If this is the case, it a better reason to seek partnership between the FTB and the Industry to develop novel approaches to eFiling and other relevant technologies, keeping an open mind and internal directed capability such as was the case with CA-ETA.

We think that the genuine and sincere partnership of the Industry and the FTB is the basis for ultimate benefit to taxpayers. This will allow the FTB to administer the tax laws of the State and provide high level technical guidance, whereas the Industry will provide the vehicles to deliver the tax dollars to State in the efficient manner, availing both in preparation/eFiling and customer service without interruption which they have for decades, without creating additional burden to taxpayers. For instance the outages experienced specifically with the overloaded FTB site due to the NetFile traffic will indeed become a major disservice to the taxpayer and duality in treatment if their post deadline returns will be considered filed timely due to inadequacies of the FTB system. To date, our systems have not experienced such a detrimental outage. Further, there seems to be certain hesitance on the part of the taxpayers to deal directly with the FTB due to the State's perceived desire to sell taxpayer data as well as the past misgivings of safeguarding their employee data. Industry safeguards the taxpayer data consistent with the IRC 7216 and more stringent California code relevant to such information. Since these codes have sufficient punitive components, it is not necessary for the FTB to create additional cost and burden upon itself to become a regulatory State organization.

We think in this era where the Privatization is a stated public policy, where many of the states are seeing the futility of running tax businesses in their back yards and developing merely 1.1 million returns among all of themselves according to the figures provided by Federation of Tax Administrators (FTA), and where practically all governments are fighting deficits of various degrees, it is very incongruent that the FTB insists on setting up a business that is competing with the Industry.

Sincerely,

Atilla M Taluy  
President

cc: Hon. Steve Westly  
Hon. Carole Migden  
Hon. Steve Peace



**I. Customer Service**

- 1. NetFile offers a “citizen-to-government” efilg experience. From your perspective, should taxpayers have the option of submitting their tax return information from their home computers directly to the FTB? Please explain.**

We do not believe that a direct submission from taxpayer to the FTB is a wise decision for the taxpayer or the FTB. Taxpayers have numerous options available to them for filing their taxes, including a variety of online software options – some of which are provided at no cost to qualified individuals. Alternatively, many taxpayers choose to pay tax professionals to prepare and efile their returns. Tax Preparation software vendors have developed their systems to meet legal guidelines and technology specifications established by the revenue agencies, including acting as an intermediary to collect, batch and transmit electronic tax returns to the agencies. Now the FTB has decided to create a different model, accepting electronic returns directly from taxpayers.

However, there has been no direct evidence we have seen that there is significant taxpayer demand for a “direct to the FTB” option to justify the expense of building and maintaining a state-funded tax preparation product. Despite years of extensive market research, no customer segment has been identified that: (1) currently does not e-file; and (2) would e-file if they could use a “direct to the FTB” site. One of the many benefits of private sector solutions as compared to government-provided products is that competition drives innovation and focus on real customer needs and wants.

We have seen information that supports the consumer’s opposition to such systems. Tax preparation software vendors have created customer-focused solutions that produce the federal and state returns in the same process. This provides customers a single solution for both state and federal that is much desired over separating those processes and requiring the federal return to be prepared using one system and the state return to be prepared using the NetFile system.

- 2. Since the implementation of NetFile in April, the FTB’s customer service impact relative to this program has been minimal. Describe any issues or concerns you may have with respect to the FTB providing customer service for NetFile.**

NetFile provided services to approximately 10,000 taxpayers out of over 6 million taxpayers in the state. Based on that, we would expect the customer



service impact to be relatively small. The real question is what happens if and when there is significant volume as the FTB has projected. Dramatic growth in the number of users of any system is certain to increase the volume of customer service requests. Any system or service problems encountered when the system is fully loaded will create a huge demand for support. It is not apparent the FTB has built plans for such a contingency.

Our concerns with NetFile center on service levels to the taxpayer. As mentioned before, the taxpayer's experience is not a smooth integrated process. Rather it is based on a separate preparation of the federal and state returns. Another concern is the ongoing perception of the electronic filing process. The public/private partnership that has been developed over the past several years has yielded tremendous results and a very positive image for e-filing in general. Any occurrence indicating less than adequate service will hurt the electronic filing message which has cumulative effects on the state as well as the industry.

## **II. Cost**

- 1. FTB staff reported that costs for the development of NetFile are roughly \$100,000 per form. These costs are relatively low due to the FTB's ability to leverage the existing e-file platform, which has been in place for a number of years. Prior to and at the April 29 board meeting, the media and testimony suggested that NetFile costs were much higher. Please share any comments or information you may have about these differences.**

No detailed information has been provided regarding the FTB's estimated cost. The information is a partial list of the items that may support a higher cost than presented.

- Developing user-friendly interactive software for complex applications such as "deep" tax preparation requires significant resources, expertise and time. There is a big difference between implementing a simple "EZ" tax product and one that handles all the intricacies of a full return with multiple interrelated forms and schedules. The flat simple estimate raises questions about the clarity of scope.

Also, related to this issue are unanticipated backend costs for error resolution. The applications that states have implemented have not supported the level or comprehensiveness of calculations as our industry's software products. The state can expect to see many more errors that will have to be resolved in processing.

- Software and hardware infrastructure to support millions of returns is an expensive proposition. System design and construction for a system that requires the oversight necessary for a high volume tax processing system requires a significant expenditure.

- Saving money by leveraging the existing efile platform may not ultimately offer the expected advantages, since there is much more involved in the design of a functional online tax preparation service than the efile infrastructure. Aside from the software architecture to handle the user interface, calculations and scalability, there is also the hardware infrastructure of the network, routers, servers and data storage.
- Designing for security and taxpayer privacy is very expensive and a somewhat specialized engineering field. Security is about more than using 128-bit encryption, and the costs can exceed 25% of the total engineering budget for a particular design function. The data storage facilities required to store and manage the information required for a tax preparation program require a large data store. Those costs also have a significant impact on the costs of the system.

### **III. System Capacity and System Failure**

- 1. Concerns have been expressed regarding the state's ability to provide sufficient capacity to meet demand for electronic filing. At the end of the April 29 board meeting, the FTB explained that the capacity issues experienced on April 15 were related to downloading blank forms, but the ability to accept all electronically filed tax returns was not impacted. If you have a concern about the FTB's ability to provide sufficient system capacity for NetFile, please explain.**

The concerns related to the state's ability to provide sufficient capacity are related to the issues encountered on April 15. The issues fall into the following categories:

- The assurance that seemingly unrelated processes affect one another. The understanding given regarding the issues of April 15 was that although the e-file system was up, the perception was that it was inaccessible because the entry point was the "main entrance" from the State website.
- The differences in scope between downloading static forms and performing online tax preparation. Once the state ventures into tax preparation, the issues are compounded. The infrastructure required on the backend to perform the calculations and validation add more overhead as well as more exposure to the entire process. The private industry has gone to great lengths to make sure the taxpayer's experience is positive from an interface as well as a performance standpoint.
- The ability to scale to handle peak volumes. As the state experienced on April 15, unanticipated volume causes significant problems. Although, the increase in volume is on the surface a good issue, too much volume causes

systems to fail and produces negative messages. Statements made regarding the use of the current efile infrastructure are a concern based on the significant changes in system requirements and design for tax preparation software vs. electronic filing software. Also of concern is the difference in requirements and design for significantly higher volumes of returns.

**2. Has your company ever experienced “down-time” on your web site? Has it had impact on taxpayers? If yes, please describe.**

The organization represents many member companies. Because of the competitive nature of this question, any objective response would need to be acquired from the individual companies responding to the survey.

**IV. Liability for taxpayer Data (Security, Disclosure, Confidentiality and Risk)**

**1. NetFile was developed using security models and standards similar to those used in the private sector. Describe any issues or concerns you have with regard to the FTB’s ability to safeguard taxpayer information in relation to it’s NetFile program. Also, please describe any issues your company has experienced in safeguarding taxpayer information.**

Our primary concern is taxpayer security beyond the security provided by 128-bit encryption. For example, the hardware and software should be designed with multiple lock-down protocols to recognize and prevent irregular online activity, and multiple layers of requests between devices for specific information to be sent in precise formats to differentiate legitimate activity from abuse. Routers must be designed and installed to allow only those systems designed to communicate with each other to do so, to prevent back doors and to block erroneous communications.

The commercial industry has been working on the issues associated with security during the tax preparation process for many years. This is another area where it appears that the FTB can take advantage of the lessons learned by industry and provide those services through a partnership.

**2. The FTB’s use of information that it obtains from taxpayers is strictly governed by law. For commercial e-file products, should information taxpayers provide in completing their returns be available for nontax purposes? Please explain.**

Use of any information obtained from taxpayers by practitioners, software publishers and e-file service providers is governed by strict rules and

regulations. Specific consent must be obtained from the taxpayer before any information can be used for marketing or other purposes. We concur with the public policy position long held by the state of California, the Federal government, and other states that taxpayers should be given the opportunity to use their tax data in any way they so choose by specifically providing consent for such use. Individuals and companies in the tax preparation industry are careful to be fully compliant with both the letter and the spirit of these laws; otherwise our customers will choose a different commercial provider.

**3. Should the state of California have a role in regulating the electronic tax preparation industry with regard to security and privacy? Please explain.**

The question is not clear in the context of the Netfile program. Members of private industry are currently required to adhere to Federal government laws that are already in place regarding online security and privacy issues.

**V. Free File Alliance**

**1. Describe any significant advantages for taxpayers that the Free File Alliance has over NetFile. Describe any significant advantages for taxpayers that the Free File Alliance has over FTB's existing Memorandum of Agreement Program for free e-file offerings.**

The cost to the state and its taxpayers is extremely low compared to the real cost of a government-funded program such as NetFile. The Free File Alliance model is predicated upon a public-private partnership wherein private sector companies make long-term commitments to donate commercial services to economically disadvantaged and underserved taxpayers in exchange for a similar commitment from the government to refrain from encroaching into the marketplace for commercial products. This has the effect of stimulating investment and innovation, ensuring options and free choice for taxpayers. The Free File Alliance allows taxpayers the ability to e-file both their federal and state return in one transaction. NetFile makes this a two-step process.

FTB's current e-file marketing gives minimal exposure to private sector. This is noticed on FTB's website, in printed material and at on-site seminars. The Memorandum of Agreement Program as it exists is a one-way street. Private sector companies are asked to provide costly services and support for free, while at the same time the FTB is encroaching into the tax preparation marketplace with their own taxpayer-funded product. NetFile threatens to drive companies away from what has been a successful public-private partnership model.

- 2. Over the last three years, the FTB has averaged 24% growth in the number of online returns received. If the FTB participated in the Free File Alliance at the state level for the 2003 tax year, what greater growth of *new online state* returns would you expect from California? Please include your methodology for determining the increase.**

Because of the competitive landscape, any objective results will have to be acquired from the individual companies responding to the survey.

However, we should point out that the growth of the FTB's e-file program is the direct result of the efforts and expertise of the private sector companies in the tax preparation industry. It is only through the excellent products, services, and marketing provided by the companies we represent that millions of American and California taxpayers have felt comfortable enough to choose to file their tax returns electronically. Ironically, NetFile represents direct competition against the very same companies that have contributed so much to the success of the FTB's e-file programs. There is a real danger that this may result in some of the participating companies discontinuing the donation of free services to the underprivileged. NetFile also disincentivizes these companies from working with the FTB to create innovative cooperative marketing programs. Industry and FTB should be working cooperatively to increase these programs, rather than working at cross purposes.

- 3. NetFile provides basic math and tax look-up features, and is currently available for the more simple tax returns. Is there any segment within the taxpayer population that you feel NetFile is appropriate for? Please explain.**

We don't believe that the issue is segmentation of the taxpayer population. Rather, the issue is working in a public/private partnership to offer services that already exist. Industry has worked cooperatively with the State of California for many years and found many solutions that benefit the State, the taxpayers and the tax preparation industry. The industry is willing to work cooperatively on programs like the Free File Alliance to produce a solution that offers the taxpaying public the best value.

## I. Customer Service

1. NetFile offers a "citizen-to-government" e-filing experience. From your perspective, should taxpayers have the option of submitting their tax return information from their home computers directly to the FTB? Please explain.

- *California taxpayers should have the no-cost option of filing taxes directly with their government. This option should offer secure, private, straight-forward filing by a taxpayer to the FTB of the major returns, forms and schedules. The California public is already widely Internet literate and is becoming more so every day – including the issues surrounding security and privacy. Their expectation correspondingly grows that State services will be available as securely and efficiently as analogous private sector services.*

*Functionality (which could be phased for cost / budget / deployment management) should include:*

- *Basic math and table look up*
  - *What-You-See-Is-What-You-Get printing*
  - *Cross reference ability to the applicable publication(s)*
  - *Availability of prior-year's filing data that is available online*
- 
- *California taxpayers should also continue to have a choice to e-file their returns with their enrolled agent or tax preparation software of choice. This "multi-channel" offering allows the taxpayer to choose the best value for their personal criteria surrounding the filing of their taxes, such as privacy, security, cost and convenience.*
2. Since the implementation of NetFile in April, the FTB's customer service impact relative to this new program has been minimal. Describe any issues or concerns you may have with respect to the FTB providing customer service for NetFile.
- *If the NetFile implementation is sufficiently user tested and the user interface is simple, the impact on FTB's customer service operations should be minimal.*
  - *Online techniques from FAQs to more sophisticated "robotic" scripts can be developed over time to make the process of customer service for NetFile as self-service enabled as possible.*

## II. Cost

1. FTB staff reported that costs for the development of NetFile are roughly \$100,000 per form. These costs are relatively low due to the FTB's ability to leverage the existing e-file platform, which has been in place for a number of years. Prior to and at the April 29 board meeting, the media and testimony suggested that NetFile costs were much higher. Please share any comments or information you may have about these differences.
  - *The \$100,000 per form seems to be a very conservative average estimate. As FTB staff gains more experience in developing NetFile and accrue more pre-existing tools and intellectual property to support the development process, this average estimate should decline.*

## III. System Capacity and System Failure

1. Concerns have been expressed regarding the state's ability to provide sufficient capacity to meet demand for electronic filing. At the April 29 board meeting, the FTB explained that capacity issues experienced on April 15 were related to downloading blank tax forms, but the ability to accept all electronically filed tax returns was not impacted. If you have a concern about the FTB's ability to provide sufficient system capacity for NetFile, please explain.
  - *FTB is experienced in engineering business processes and information systems to deal with the peak loads of filing season. Network and server offerings are available from the major ISP and systems vendors that allow an "on demand" increase in capacity based real-time user demand requirements. A combination of fixed infrastructure and these "on demand" resources would enable FTB to cost-effectively meet NetFile capacity and continuous availability requirements.*
  - *As a principle, NetFile infrastructure should be isolated from the demands of competing FTB workloads as much as possible.*
  - *The NetFile infrastructure components should be configured for redundancy to facilitate continuous availability and load balancing.*
2. Has your company experienced "down-time" on your website? Has it had an impact on taxpayers? If yes, please describe.
  - *IBM's website is configured for 24x7 availability. Our world-wide customer base demands this of our systems. Our unscheduled downtime is negligible. Our customers are not taxpayers (to us) but obviously our website is one of the commercial websites that sets California taxpayer's expectations.*

**IV. Liability for Taxpayer Data (Security, Disclosure, Confidentiality, and Risk)**

1. NetFile was developed using security models and standards similar to those used in the private sector. Describe any issues or concerns you have with regard to the FTB's ability to safeguard taxpayer information in relation to its NetFile program. Also, please describe any issues your company has experienced in safeguarding taxpayer information.
  - *From years of experience in working with FTB, IBM has first hand knowledge of the extraordinary diligence with which FTB protects taxpayer information. We have no concerns about their ability to do so on the NetFile program.*
  - *The privacy and security capabilities of the NetFile program's processes and technical infrastructure should be periodically audited.*
2. The FTB's use of information that it obtains from taxpayers is strictly governed by law. For commercial e-file products, should information taxpayers provide in completing their returns be available for nontax purposes? Please explain.
  - *Taxpayers that use commercial e-file products should "opt-in" to any sharing of their financial information by the e-filing vendor.*

*Otherwise, the taxpayer information should be treated by the e-filing vendor in an "enveloped" secure manner as means of collecting and transmitting the data as an agent of FTB – and it should not be available for nontax purposes.*
3. Should the State of California have a role in regulating the electronic tax preparation industry with regard to security and privacy? Please explain.
  - *The State of California should dictate the security and privacy requirements and processes to any vendors participating FTB e-filing program. Also, FTB should audit the e-filing vendors for compliance.*



**V. Free File Alliance**

*IBM is not a member of the Free File Alliance and is not in a position to respond to these questions.*

1. Describe any significant advantages for taxpayers that the Free File Alliance has over NetFile. Describe any significant advantages for taxpayers that the Free File Alliance has over FTB's existing Memorandum of Agreement Program for free e-file offerings.
2. Over the last three years, the FTB has averaged 24% growth in the number of online returns received. If the FTB participated in the Free File Alliance at the state level for the 2003 tax year, what greater growth of *new* online *state* returns would you expect from California? Please include your methodology for determining the increase.
3. NetFile provides basic math and tax look-up features, and is currently available for the more simple tax returns. Is there any segment within the taxpayer population that you feel NetFile is appropriate for? Please explain.

**Other Information**

Please feel free to provide any other information, concerns, suggestions, or alternatives with respect to NetFile and the Free File Alliance.

## **CAGW**

### I. Customer Service

1. NetFile offers a “citizen-to-government” e-filing experience. From your perspective, should taxpayers have the option of submitting their tax return information from their home computers directly to the FTB? Please explain.

The question characterizes the NetFile system as a simple “citizen-to-government” proposition. That characterization is simplistic and plays down the realities of NetFile.

NetFile is not simply an electronic tax filing system. It is an online tax preparation service. Permitting California citizens to file their taxes from their home computers with one key stroke is a reasonable utilization of the web technology. However, the creation and maintenance of a complex technological infrastructure in order to encourage taxpayers to *prepare* taxes on the state’s website is a superfluous feature which inappropriately supplants services already being provided efficiently by the private sector. As such, it is unnecessary and wasteful

There is also the fact that submitting *detailed tax return information* creates a conflict of interest, as the government is serving as both tax preparer and tax collector. NetFile generates serious privacy concerns, since the state government can track each keystroke as individual taxpayers complete the process.

The misleading format of the question underscores the fact that California government officials continue to misapprehend the difference between e-government services and e-commerce services. In fact, government at all levels has consistently failed to draw a bright line between offering e-government services and engaging in direct e-commerce, which is beyond its purview. NetFile is simply one of the most egregious examples of that fundamental misunderstanding.

Government involvement in NetFile wrongly leads consumers to believe that privacy is ironclad. They wouldn’t think, for instance, that their government tax agency would use their personal, private tax information for marketing purposes, or give that information to a for-profit company for such purposes, but that is exactly what the IRS did in 2000. Nor would they think that by using NetFile or any other state government online tax preparation and e-filing system that they could be increasing their chances for audit. Nor are they aware that they are inadvertently providing to the state a greater amount of private information for possible use in a future audit (making them a more inviting target) than their non-NetFile using peers. Nor do they expect that they may be making themselves much more likely to be subject to inter-governmental agency data mining, where their personal tax and income information could potentially be shared with workers at other government agencies.

2. Since the implementation of NetFile in April, the FTB's customer service impact relative to this new program has been minimal. Describe any issues or concerns you may have with respect to the FTB providing customer service for NetFile.

The actual "customer service impact" of the NetFile system is largely obfuscated by the fact that it is funded through the appropriation of tax dollars from the state's budget and the true costs of the program to all Californians are hidden. Any credible cost-benefit analysis would have to look at the impact not just on that relatively small percentage of taxpayers using the system, but also on those who pay for the system and don't use it. A reasonable cost-benefit analysis would also take into account the lost opportunity costs when those tax resources are diverted away from more important government services. This is especially relevant to Californians now, when they are facing a massive fiscal crisis

A state agency charged with collecting taxes has an inherent conflict of interest when it expands its mission to become both collector and preparer. In its role as collector (ever more so in these tough fiscal times), there is little incentive to advise taxpayers on how to legally minimize their tax burdens.

There is also the added expense to taxpayers for NetFile live customer service, which is already available from the private sector. If NetFile usage increases, more taxpayers will be contacting FTB for assistance - not just technical help, but tax advice. If NetFile usage increases, there would be the need for more live phone operators and live "chat help" staff (not to mention additional technical staff). Putting aside for a moment the cost of the NetFile technology, any company in the private sector that operates such services in the real world will tell you that these additional "bodies" offset any alleged cost savings the state might realize. This point has been punctuated by FTB officials, who have acknowledged that even if NetFile were successful in every way envisioned by the FTB, there would be no reduction in body count. Redundant staff would simply be shifted to other areas, not released at a cost savings to taxpayers.

## II. Cost

1. FTB staff reported that costs for the development of NetFile are roughly \$100,000 per form. These costs are relatively low due to the FTB's ability to leverage the existing e-file platform, which has been in place for a number of years. Prior to and at the April 29 board meeting, the media and testimony suggested that NetFile costs were much higher. Please share any comments or information you may have about these differences.

The current FTB staff estimate of only \$100,000 per tax form to launch the system does not include an estimate on the costs to operate it and provide the e-commerce services. This same FTB permanent staff estimated four years ago it would cost five times that amount to launch just one interactive form online, the 540 2-EZ, and subsequent disclosures showed this \$500,000 estimate to significantly understate actual expected costs.

Based on other programs built, considered, or rejected by individual states, it would cost between \$50 million and \$350 million in taxpayers' money over 10 years for California to develop, design, build, and operate a Web-based system for online preparation of state tax returns.

This estimate is contained in a report released by CAGW (included with this document). CAGW conducted that research by contacting current and former engineers who design or operate such systems for private sectors vendors of identical online tax preparation and e-filing services. It is fantasy to suggest that a private, secure, high-quality system could be built and maintained for the FTB's estimated \$100,000 per form cost. This figure clearly does not include several primary cost factors. Further, like many government projects, the costs of which routinely exceed budget projections, it is highly likely that, if fully engaged, this "construction project" will include the same excessive cost overruns. And, like most government projects, once the projected cost estimates double, then triple, project staff with a vested interest in the implementation of the program (regardless of price tag) will adopt a "well, we're this far along, let's just finish it" attitude. Taxpayers will then be forced to fund a service they never needed in the first place.

The frequent "spin" one hears from California government officials is that the NetFile service is "free." It isn't. For instance, in Virginia, public documents obtained under the Freedom of Information Act show that the state spent \$123 million (without financing costs) to build their online tax system. That means every one of the six million men, women and children who live in VA paid \$20.50 each so that a handful of users could get "free" access to their tax filing system. If you calculate that using the number of *taxpayers*, not the total population, the cost is actually far higher than \$20.50 per person. So, while a handful of Virginia (or California) residents might use NetFile "for free," in reality they and every other Californian are actually paying a whole lot more for it than "nothing." This fact is more outrageous in view of the fact that California's recently-passed state budget will be slashing many services considered much more vital to the state as a whole, and which are not already provided the private sector at affordable prices.

### III. System Capacity and System Failure

1. Concerns have been expressed regarding the state's ability to provide sufficient capacity to meet demand for electronic filing. At the April 29 board meeting, the FTB explained that capacity issues experienced on April 15 were related to downloading blank tax forms, but the ability to accept all electronically filed tax returns was not impacted. If you have a concern about the FTB's ability to provide sufficient system capacity for NetFile, please explain.

The very wording of the question belies a fundamental misunderstanding of systems integration, one of the bedrock principles of operating a network of any kind. How can a potential user of the system take advantage of the operational part of the system without obtaining the necessary materials to do so...from the non-working part? The fact that one portion continued to function does not minimize the magnitude of the

failure. Moreover, government agencies— particularly in the tax area — have long been plagued with technological problems. Apparently, government-run systems are not particularly adept at running a system that experiences routine fluctuations which leave it under- utilized 99 percent of the time, but experiences massive demand over short periods during the remaining one percent of the time.

There is a gross inequity when all taxpayers cross-subsidize the year-around cost of a service which is used by a miniscule percentage of taxpayer only a small percentage of time. NetFile has a poor uptake rate among taxpayers, who only use it a few days of the year, yet it suffers a technological failure at its most critical moment.

This inopportune technological failure begs the question of who really benefits from the existence of NetFile. Where is the public outcry by California citizens demanding this vital service? The FTB has failed to produce any evidence of pent up demand for online tax preparation services. The “consumer advocacy” groups involved in supporting this initiative are not comprised of consumers at all. Their funding is provided almost entirely by public employee and other labor unions and their hired lobbyists. Public survey market research polling done on this issue has shown that taxpayers don’t seem to want this service. Indeed, many oppose it vehemently because of privacy, security and cost concerns, especially in light of the state’s budget woes.

There are dozens of private sector tax preparation alternatives. In order to stay competitive, these private sector companies must keep up with the latest technology and provide ample customer service for any potential problems that arise, at no additional cost to the taxpayer. Entrepreneurs in the private sector, taking the risk with their own money, have learned all the technological lessons there are to learn in order to provide a bug-free, technologically robust product at a reasonable price. In the case of low-income taxpayers, they often provide these services at no cost, through public-private partnerships with the federal and state governments. These private companies are the most appropriately positioned to serve all of the customers.

2. Has your company experienced “down-time” on your website? Has it had an impact on taxpayers? If yes, please describe.

No. Obviously, Citizens Against Government Waste is not a “company.” Nor are we funded with taxpayer dollars.

#### IV. Liability for Taxpayer Data (Security, Disclosure, Confidentiality, and Risk)

1. NetFile was developed using security models and standards similar to those used in the private sector. Describe any issues or concerns you have with regard to the FTB’s ability to safeguard taxpayer information in relation to its NetFile program. Also, please describe any issues your company has experienced in safeguarding taxpayer information.

Repeated studies by the U.S. General Accounting Office (GAO) and others continually give government agencies failing grades when it comes to maintaining and protecting

critical systems against hacking and other security threats. Furthermore, despite the implication in the question, government agencies are not subject to the same federal laws governing taxpayer privacy as private sector companies. Should a private sector entity misuse private data, the victim has legal recourse to take action against the perpetrator. This is not the case in the public sector.

NetFile gives the government the ability to electronically "see" - keystroke-by-keystroke - additions and deletions made in the process of preparing a consumer's taxes. There appear to be few guarantees preventing the misuse of this sensitive information. The FTB is currently allowed by law to share the information it gathers with city and county tax agencies seeking to practice computer "data mining" techniques to target investigations to find more potential tax revenue from individuals. Proponents of NetFile consistently present only the system's "advantages," without appropriately warning taxpayers of the dangers to their privacy rights. Not only is it an inherent conflict of interest for the state tax board to control this information, but it will be expensive to maintain quality privacy standards as technology advances.

2. The FTB's use of information that it obtains from taxpayers is strictly governed by law. For commercial e-file products, should information taxpayers provide in completing their returns be available for non-tax purposes? Please explain.

As you might suspect from our earlier answers, CAGW would respond that the question is based on a completely fallacious assumption. Tax agencies are not governed by as strict a regimen of laws as private industry. There are few penalties, comparatively, for the gross violations of taxpayer privacy that have occurred in tax agencies in the past. Low and mid-level bureaucrats at tax agencies in the U.S. and around the world have paid few penalties for their transgressions. Indeed, the "strict" laws governing the use of this data referenced in the question above have all been enacted as a result of scandalous abuses by government workers. Private sector companies in the tax field, on the other hand, have long been governed by federal laws that would result in penalties far worse than any suffered by tax agency staff caught perusing their neighbors' returns.

3. Should the State of California have a role in regulating the electronic tax preparation industry with regard to security and privacy? Please explain.

Ironically, it is government at all levels that has the blemished track record of safeguarding sensitive information. Rather than spending taxpayer resources on onerous regulatory schemes targeting private sector companies, CAGW has advocated that the government ought to model itself after the private sector in the encrypting of data and sensitive information.

## V. Free File Alliance

1. Describe any significant advantages for taxpayers that the Free File Alliance has over NetFile. Describe any significant advantages for taxpayers that the Free File Alliance has over FTB's existing Memorandum of Agreement Program for free e-file offerings.

CAGW's position is that there is absolutely no inherent reason for government at any level to provide tax preparation services. The private sector has developed a mature, competitive sector to meet any demand there might be for this service and there is no national interest associated with government involvement with the activity.

2. Over the last three years, the FTB has averaged 24% growth in the number of online returns received. If the FTB participated in the Free File Alliance at the state level for the 2003 tax year, what greater growth of *new* online *state* returns would you expect from California? Please include your methodology for determining the increase.

See above...

3. NetFile provides basic math and tax look-up features, and is currently available for the more simple tax returns. Is there any segment within the taxpayer population that you feel NetFile is appropriate for? Please explain.

Tax collection is a government function. Using the internet and electronic filing to provide useful information to taxpayers and facilitate the electronic collection of tax revenues is an appropriate use of the government resources, especially when it can show cost savings over the long term. However, tax preparation is a private sector activity.

#### Other Information

Please feel free to provide any other information, concerns, suggestions, or alternatives with respect to NetFile and the Free File Alliance.

## **CAGW**

### **California's Franchise Tax Board as H&R Block – A Costly Gamble**

The documentary movie *Startup.com* illustrated how \$150 million was blown in a failed effort to build the now bankrupt GovWorks.com, Inc. into an electronic portal for government services. Forgetting this recent history, staff-level officials at the Franchise Tax Board (FTB) are using taxpayers' funds to do the same thing in the hopes of developing a complex electronic tax-preparation system for income tax returns.

This system would be extremely expensive, costing not just millions, but tens or hundreds of millions of dollars, at a time when the state faces a \$35 billion budget crisis and is cutting money for other vital services. Despite the state's red ink and California's dubious recent history with large-scale computer IT projects, the FTB is expanding the role of government and duplicating services already provided for free by numerous private sector business.

They may be older than the fresh-faces stars of *Startup.com*, but the bureaucrats at the FTB are making the same mistakes. The difference is that public tax dollars are going to be wasted, instead of private venture capital.

#### ***A Costly Experiment***

There are significant privacy and security concerns associated with state government becoming every taxpayer's tax preparer. But whether or not the FTB can respect the privacy of citizens e-filing their taxes, an even bigger issue is cost.

FTB staff currently estimates it will need only \$100,000 per tax form to launch the system, with no estimate on the costs to operate it and actually provide the e-commerce services. This same FTB permanent staff estimated four years ago it would cost five times that amount to launch just one interactive form online, the 540 2-EZ, and subsequent disclosures showed that \$500,000 estimate to significantly understate actual expected costs.

But based on other programs built, considered, or rejected by individual states, it would cost between \$50 million and \$350 million in taxpayers' money over 10 years for California to develop, design, build, and operate a Web-based system for online preparation of state tax returns. Information on these other states' tax systems is available to the FTB, calling into question whether its low-cost estimates are based on ignorance or a desire to mislead legislators.

FTB staff has said their objective is to offer online services that compare favorably to commercial businesses like Amazon.com. They cannot do that for \$100,000 in development costs and \$5,000 a year in updating, maintenance and operating costs. By way of comparison, Virginia, one-eighth the size of California, projected its start-up costs for a similar online tax preparation services program at a minimum of \$123 million over five years.



In a document from the Virginia Department of Taxation, *The Partnership Project: Delivery of Customer Service*, which discusses the cost of that state's "iFile" online tax system, it notes that the Virginia Legislature twice refused to fund "iFile." But that didn't stop determined state tax agency staff from creatively going around the Legislature. Staff of California's FTB is also pushing ahead with its own system despite legislative concerns.

The reality is that because the FTB, as a government agency, has no experience in providing commercial electronic financial services, it does not have any clear idea of how much this project will ultimately cost the state or how many additional government employees will be needed. Indeed, the facts suggest that the FTB's online tax system as envisioned by career bureaucrats will require outlays of more than \$30 million per year, which is hardly "free" to taxpayers, since they foot the bill. CAGW looked into the costs associated with similar existing systems in the private sector and estimates that to build, refine, and expand an online tax return system will necessitate a massive expenditure of taxpayer funds.

Expense Category	Description	Yearly Cost
Data Center	Internet servers, connectivity and related equipment	\$12,600,000
Engineering	Design, configuration and operational assets	\$9,000,000
Tax Development	Creation and refinement of online tax forms and instructions	\$2,000,000
Technical Support	Customer service representatives, FAQs, telephone service centers, etc.	\$4,400,000
Marketing	Mailings, advertisements and related promotional activities	\$4,000,000
Administration	overhead and management costs	\$2,000,000
<b>TOTAL PER YEAR:</b>		<b>\$34,000,000</b>

Ignoring the inevitable cost overruns inherent in all government procurement programs, the FTB's online experiment promises to cost California taxpayers between \$50 million and \$350 million over the next decade.

### ***Examples Abound***

When the U.S. military developed an Internet-based voting system for the 2000 elections, the *Washington Post* found that the average cost-per-vote from overseas enlisted personnel was a whopping \$74,000 per soldier. It's likely that the FTB's technology plan will cost far more than the \$6.2 million the Defense Department spent to build an online voting system. But California has proved no slouch in cost overruns.

- In 1997, after spending more than \$111 million, the state abandoned development of a system to establish a statewide, automated network for tracking child support payments.
- Just last month, the California State University System admitted that it spent more than \$600 million on a computer system that will not only cost \$60 million annually to run but may not fix the problem it was intended to solve.
- According to the California state Auditor, other major project failures, including those at the Department of Motor Vehicles and the Department of Corrections, have cost the state and taxpayers \$400 million.

A recent report by the California State Auditor, *Information Technology: Control Structures Are Only Part of Successful Governance*, warned that, "Because it demands a significant commitment of resources - both financial and human - developing an IT project is disruptive to an organization and may shift its resources away from its primary mission. Many IT projects cost more and take longer to complete than originally planned, and others are abandoned altogether when concerns mount regarding cost overruns or system malfunctions.

"Surveys of large companies and federal government agencies reveal that only one-quarter of all large-scale systems development projects are completed on time and within budget, and almost 30 percent are abandoned because they cannot meet the developing entities' requirements, resulting in lost taxpayers dollars for governments and substantial lost revenues and profits, even bankruptcy, for businesses." (Pages 5-6, available online at [www.bsa.ca.gov](http://www.bsa.ca.gov))

One thing is certain: the FTB staff's online tax preparation system is NOT free, as FTB's press releases claim. All California taxpayers will pay for the start-up costs and all future operations, expansion and maintenance. Assemblywoman Rebecca Cohn of Saratoga calls it "a costly waste of taxpayer dollars."

### ***This Plan Breaks Long-Standing Precedent***

The parameters of government action, vis-à-vis private sector business, have been clear for many years. It is instructive to see how it has evolved on the federal level. In 1983, the US Office of Management and Budget (OMB) outlined federal policy regarding the performance of commercial activities. It was revised in 1999 to implement the Federal Activities Inventory Reform Act of 1998. Among its key tenets is:

The Federal Government shall rely on commercially-available sources to provide commercial products and services. In accordance with the provisions of this Circular and its Supplement, the government shall not start or carry on any activity to provide a commercial product or service if the product or service can be procured more economically from a commercial source. (OMB Circular A-76)

The Commissioner of the IRS and the Electronic Tax Administration Advisory Committee agree – having recently pushed the IRS to develop its e-filing system to reduce paperwork, yet leaving tax *preparation* to private commercial entities:

*"The IRS does not intend to offer Internet preparation or filing services itself in any form, nor do we plan to contract with a limited number of private companies to provide these services indirectly. In fact, the IRS is planning to work closely with the private sector to find ways to achieve the free electronic filing objective. In particular we will consult extensively with the Electronic Tax Administration Advisory Committee (ETAAC) on any policies we may be considering before we implement them." - IRS Commissioners response to inquiries from Congress, October 3, 2000*

*"The ETAAC believes that the most appropriate actions the IRS can take to provide taxpayers with a wide choice of no cost tax preparation and filing options over the Internet are to: 1) let the competitive market continue to progress, and 2) continue stimulating electronic filing through its creative advertising campaign and making electronic filing convenient to use through such improvements as the acceptance of additional forms and the elimination of paper." - Letter from ETAAC (an outside board composed of a wide variety of stakeholders created by Congress in the IRS Restructuring and Reform Act of 1998 to monitor and guide the IRS' electronic filing goals)*

### ***Other States Abandon California Approach***

In January of 2003, the vision laid out above in the ETAAC letter became reality at the federal level. The IRS and 17 private-sector tax software companies entered into a no-cost public/private partnership called The Free File Alliance which has, since January 15th, 2003, been providing free access to some of the best known commercial tax software products at no cost to the consumer. The result: electronic tax filing is way up, and 90 percent of that increase is due to the Free File Alliance, the IRS just told Congress.

The program has worked so well that several states have now also agreed to create a "Free File Alliance" of their own, modeled after the new federal version. In some cases, like Michigan and New York, states that offered no form of electronic tax system are using the Free File model to help consumers file their taxes electronically (and for free) for the first time.

In other instances, such as in Massachusetts, states have actually elected to pull down their own costly online tax preparation systems. The slow uptake rates of the government tax system by consumers, coupled with the high per-user costs make the Free File system - which costs cash-strapped state governments virtually nothing - an inviting alternative to developing a state-run IT tax system.

The new tax preparation scheme planned by the FTB is a not only costly, but potentially dangerous. Issues of security, privacy, and the proper role of government tax agencies

are inherent. How will web-based tax returns be protected from the ever-present risk of hacking?

Repeated studies by the U.S. General Accounting Office (GAO) and others continually give government agencies failing grades when it comes to protecting against hacking. Also, can taxpayers trust the FTB to "assemble" their tax information and "calculate" their taxes? After all, the FTB's job is to maximize tax revenue. Is it proper for government to collect and store tax information on behalf of taxpayers? Can the FTB be counted upon to give reliable, accurate advice to taxpayers on which deductions they can (or should) take? Is that an appropriate role for any government?

Additionally, should the government be able to electronically "see" - keystroke-by-keystroke - the additions and deletions made in the process of preparing ones taxes? This has the electronic effect of having an FTB auditor stand behind every filer, looking over their shoulder as they prepare their taxes - traditionally private information that could later be used against consumers in an audit. The FTB is now allowed by law to share the information it gathers with city and county tax agencies seeking to practice computer "data mining" techniques to target investigations to find more potential tax revenue from individuals.

According to a January 20, 2003 report in the *Los Angeles Times*, "cities and states are stuck with mining their taxpayers to shake loose whatever revenue they can." Or, as a state tax collectors' advocate explained it: "It amounts to combing through files that can tell you something about taxpayers, or people who should be taxpayers, and matching those results to your files," -- Harley Duncan, director of the Federation of Tax Administrators.

### ***Serving Underprivileged Citizens***

One of FTB's principal rationales is that with the "digital divide," low-income Californians cannot afford the software and Web services to file taxes electronically.

Yet underprivileged citizens are already well served in this area. Commercial tax preparation and filing companies offer free federal and state online tax preparation services to families with incomes below \$30,000 per year (which exceeds the federal poverty level).

More than 5,000,000 electronic returns were processed and filed by Intuit Corp. alone since the start of their "Intuit Tax Freedom" program five years ago. Through the Free File Alliance, some 17 companies, including H&R Block, now also offer a similar free program for consumers.

In addition, the "digital divide" would hardly top the list of grievances for low-income families in California (or elsewhere, for that matter). Given the choice (and any budget must be about choices and priorities), would most citizens prefer to have tens, if not hundreds of millions of dollars in government resources used to cobble together a

subsidized, state-supervised electronic tax preparation system rather than put those resources to use addressing more the more pressing needs of low-income California citizens, such as education, housing and nutritional needs? As a social priority, online tax preparation is a distant second to these critical issues.

### ***Issues of Competence and Integrity***

Whether or not it is economically justifiable, the FTB's expansion into the realm of online tax preparation and filing presents a serious question of credibility. As former California State Controller Kathleen Connell cogently observed in 1999, "if you use [private sector] services, they're going to find a way to save you taxes. . . . They are going to find the best solution for you, bottom line. [But] obviously, a tax agency is not going to be arguing against themselves."

With the 24/7 availability of governmental information on the Internet, people's lives can be made easier and their relations with state governments less time-consuming and confusing. Yet government itself must actively recognize that there are some roles it should not play.

By attempting to characterize itself as the guardian of every Californian's tax interests, the FTB is seeking to assume a new and dangerous role. We all know the stories of chronic government bureaucratic mismanagement of projects. If that same bureaucratic incompetence moves into the realm of tax preparation and filing, the \$50 million to \$350 million projected for the FTB's "free" online system over the next decade may well prove to be just the tip of the iceberg.

### ***A Matter of Priorities***

As California is facing massive budget deficits, and with the legislature clamoring to find more funding for such fiscal priorities as education, health care and environmental protection, the FTB's online tax offering is particularly perplexing.

In fact, the FTB's program will dwarf other more important programs of direct interest to taxpayers of all income levels. For example, how many soon-to-be-laid-off teachers, police officers, environmental inspection officers and other state service providers could remain at work if not for the FTB's costly folly?

These and other initiatives are the real cost of the FTB's ill-conceived foray into commercial online tax preparation. There is no compelling reason to duplicate tax preparation services already offered by a competitive private sector when the price is higher taxes or less budgetary resources available to meet the very real challenges our state faces today. This is especially true when those private sector providers have offered to give their products away to most state tax filers for free. In a perfect world, taxation would be dramatically simplified and less intrusive, thereby eliminating the need for a class of tax professionals. As long as the complexity of the tax code creates a demand for

tax prep, it is better for competing private companies to provide this service than government tax collection agencies.

The FTB has failed to make its case that there is a demand for such a service.

### ***Conclusion***

The price tag for the California Franchise Tax Board's proposed foray into online tax preparation services is ill conceived, expensive and risky.

As the state faces a \$35 billion budget shortfall, there are clearly far better uses for limited budget resources than wasting \$50 million to \$350 million on an electronic tax system that poorly replicates services already widely available in the private sector.

Like the failed entrepreneurs in *Startup.com*, the FTB's officials seem to believe they can use information technology to revolutionize the tax system in California. This is a recipe for disaster, except the money being wasted is that of California's taxpayers, not that of California's venture capitalists.

**CCIA**



September 3, 2002

Mr. Paul Mamo  
E-Government Program Office  
Electronic Tax Administration (ETA)  
Internal Revenue Service  
1111 Constitution Avenue NW  
Room 2403  
Washington, D.C. 20224

Via electronic mail: [wi.egov@irs.gov](mailto:wi.egov@irs.gov)

RE: Federal Register Docket 02-19835  
Electronic Tax Preparation and Filing, Intent to Enter Agreement

Dear Mr. Mamo:

This letter constitutes the response and endorsement of Computer & Communicating Industry Association (CCIA) to the notice posted in the Federal Register on August 8, 2002, requesting comments regarding the agreement between the IRS and the tax preparation industry. In summary, CCIA believes the agreement reached is a critical one that actually serves as a model to define the relationship of government and industry in the electronic commerce arena, and wholeheartedly supports the formal completion of the agreement.

CCIA is an international, nonprofit association of computer and communications industry firms, representing a broad cross-section of the industry including small, medium and large companies. CCIA is dedicated to preserving full, free and open competition throughout its

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industry. Our members employ over a half million workers and generate annual revenues in excess of \$300 billion.<sup>5</sup>

In our opinion, any evaluation of this Agreement must begin not only by recognizing what this Agreement promises – but what it avoids. What it promises is a huge boost in consumer welfare by providing a public-private cooperative mechanism that will permit many companies to make electronic tax preparation and electronic filing of returns available for free. Many poor segments of the population, including many recipients of the Earned Income Tax Credit (EITC), will be able to file their taxes and obtain their benefits more easily. Similarly, “digital have-nots,” or those on the wrong side of the Digital Divide, will be particular beneficiaries of this program, by being able to obtain easier access to the tools of electronic commerce. It is these needy population groups that a program of this kind offers the most meaningful benefit and value.

But what will be avoided is equally important. The IRS’s decision to embrace a public-private partnership to obtain a variety of electronic tax preparation and electronic filing services avoids significant costs and risks. First, development of such programs is expensive and must be updated and refined each year. Our members have estimated annual costs in this regard as \$50 million. Since web-based software development projects and consumer electronic commerce are not within the core competencies of government agencies, the proposed Agreement ensures that the otherwise continuous need to pay such costs year-after-year are lifted from the public treasury, and thus from American taxpayers. We believe full life cycle costs for a ten-year period for such a national system would have easily totaled between \$300-500 million. Moreover, the track records of the national and state governments that have attempted to undertake this function point to a high risk of unexpected costs and, ultimately, failure.

Second, IRS avoids the possibility of having a major privacy or security failure that could implicate its program if hackers can successfully attack the single flavor of IRS tax software. Similarly, the chosen strategy avoids the nightmare of the U.S. government’s national tax software exhibiting serious performance problems, as we have observed with the government

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<sup>5</sup> CCIA’s members are listed at [www.ccianet.org/membership.php3](http://www.ccianet.org/membership.php3).

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program in the United Kingdom, which experienced such massive failures that it had to be taken offline for a month. In addition, the government's traditional unwillingness to stand behind and guarantee the tax information it provides consumers would have gravely burdened such a system.

Third, the selected strategy helps ensure that a competitive and innovative technology industry, which reduces costs for consumers and adds innovative new features, will continue to push forward, giving taxpayers a choice of the service they want, whether free or paid.

Fourth, it creates a stable relationship for the continued expansion of the delivery of free services in a way the government can publicize for taxpayer awareness, without promoting, or appearing to promote, any particular company or product.

Fifth, the adopted strategy avoids the inherent conflict of interest that would be created by the IRS' role of collecting revenue and also becoming a tax software preparation operation. The taxpayer has an interest in limiting what is paid to only that which fairly meets their tax obligations, while the government's interest is obviously to maximize revenues. In Virginia, documents uncovered by information requests raise the troubling prospect that the Commonwealth's motivation in creating a government software and e-filing utility was driven in part by the desire to obtaining more revenue. The IRS has clearly sidestepped this conflict of interest by proposing this agreement. This partnership clearly benefits taxpayers by not only keeping tax preparation private, but keeping it separate and independent of tax collection.

### **The Agreement is Consistent with Current Congressional Direction**

The proposed agreement and Federal Register announcement is also completely consistent with policy direction in past representations made to Congress by IRS Commissioner Rossotti on October 3, 2002 on behalf of the Executive Branch, before the U.S. House of Representatives Committee on Appropriations, Subcommittee on Treasury-Postal Appropriations. In the most recent direction of the House Treasury-Postal Subcommittee, its Committee Report states:

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**“NO-COST EZ TAX FILING**

*On October 3, 2000, the Committee held a hearing on electronic tax administration that focused on IRS plans with respect to no- or low-cost digital filing of tax returns over the Internet. At that hearing the IRS stated that it did not intend to enter into the tax preparation software business; instead, it intended to work in partnership with industry to expand the electronic filing of tax returns. The necessity of a partnership between the industry and the IRS was again emphasized in a statement released by the Department of the Treasury on January 30, 2002. In answers provided this Spring to questions for the record, the IRS echoed this commitment to work with industry and noted that IRS plans did not include tax preparation services. In addition, the IRS stated that it did not have the resources to build, implement, and maintain a free Internet tax preparation and filing option by itself. The Committee further notes that the IRS in its budget is seeking no such resources, nor has this Committee provided any. The Committee strongly believes in the industry-IRS partnership concept and directs the IRS to continue strengthening its ties with the private sector and computer software community as it moves forward in this endeavor.”*

**The Agreement is Consistent with Presidential Policy**

The direction the IRS is taking with this proposed Agreement is consistent with the policy principles set forth by ten Presidents over a period of more than 50 years in OMB Circular A-76. This Presidential directive specifically states that “*in the course of governing, Government should not compete with its citizens;*” that, consistent with this, “*the Government shall not start or carry on any activity to provide a commercial product or service;*” and, that these operating principles are underpinned by the core precept that “*a commercial activity is not a governmental function.*”

The proposed Agreement comports with Circular A-76 because IRS does not seek to insert itself as a competing participant in the commercial market for electronic financial services, such as online tax preparation, an area in which the private sector is already clearly providing robustly competitive services. Unlike plans to either build such capabilities or buy services from

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one or more vendors, either of which strategy would have supplanted a competitive industry, this Agreement chooses instead to maintain a competitive marketplace free of government intrusion.

In addition, the Agreement is consistent with the 1997 Presidential Directive to all Executive Agencies entitled “A Global Framework For Electronic Commerce,” which states:

“Governments can have a profound effect on the growth of Electronic Commerce. By their actions, they can facilitate electronic trade or inhibit it. Knowing when to act and – at least as important – when not to act, will be crucial to the development of electronic commerce. . . .” (*Emphasis added*); and

“For Electronic Commerce to flourish, the private sector must lead. . . .”

### **Previous Expressions of Congress are Consistent with this Agreement**

Congress has explicitly rejected giving the IRS the authority to regulate competition in the tax software industry. In 1998, the IRS provided proposed draft language to Congress stating the following: “The intent of this section [of the IRS restructuring legislation] is for the Internal Revenue Service to stimulate and manage competition by writing rules so that the private sector competition is robust.” Congress rejected that requested new regulatory authority, and refused to adopt the language. Instead, Congress mandated in that same IRS Reform and Restructuring Act that the agency was by its actions to ensure that it *encourages* competition in the private-sector electronic tax services industry. The proposed Agreement clearly fulfills this Congressional direction.

### **Government Encroachment Problems are not Part of this Agreement**

CCIA has long been concerned with potential government encroachment in electronic commerce. CCIA commissioned Nobel Prize economist Dr. Joseph Stiglitz of Columbia University and The Brookings Institution to examine the economic policy issues in these matters.

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His analysis proposed a principled set of rules to guide when government should enter, or not entry, into a consumer market. The proposed Agreement is very consistent with Prof. Stiglitz' study and findings, particularly the tenth, eleventh and twelfth principles that he identified in his study:

Principle 10:

The government should exercise substantial caution in entering markets in which private sector firms are active.

Principle 11:

The government (including governmental corporations) should generally not aim to maximize net revenues or take actions that would reduce competition.

Principle 12:

The government should only be allowed to provide goods or services for which appropriate privacy and conflict of interest protections have been erected.

Dr. Stiglitz called these the “Red Light Principles for Governmental Activity” because he believed they represent the place where e-government must appropriately give way to private sector e-commerce. We have attached a copy of the full Stiglitz Report to this filing.<sup>6</sup>

Prof. Stiglitz is not the only expert to address this issue. The Progressive Policy Institute, a group often associated with the Democratic Leadership Council, also addressed this subject. Their paper, “Digital Government: The Next Step to Reengineering the Federal Government,” extols the benefits of digital government but warns that government efforts “should complement, not duplicate private sector efforts.” The authors, Robert Atkinson and Jacob Ulevich, identified the Postal Service’s efforts in electronic bill payment and presentment, and State government thrusts into electronic tax preparation services, as prime examples of clearly commercial activities in which government should *not* be engaged.

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<sup>6</sup> Professor Stiglitz’ study is attached to these comments and can also be found at [www.ccianet.org/digital\\_age/report.pdf](http://www.ccianet.org/digital_age/report.pdf).

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Similarly, the conservative Progress and Freedom Foundation has published a detailed study on the specific question of the role of government in electronic tax preparation services, published in 2002, which concludes that such forays are anticompetitive, represent serious threats to individual privacy, are outside the core competency of the public sector, and represent unacceptable costs to the public treasury.

Some have suggested that if government were to outsource its program of tax preparation services, that such a public contracting strategy would somehow ameliorate the concerns that have been studied and expressed by the published range of public policy experts and economists on this subject. To the contrary, the contracting methodology makes no difference. Whether the government builds or buys does not change the underlying damage done or substantial costs incurred.

Similarly, some have suggested that if government were to provide “Return Free Filing,” or tax services in a bill presentment format, these approaches would be somehow different and not have the risks and downsides of standard commercial tax preparation in the context of the public policy debate. However, there is no logical basis for such suggestions. First, as market research would demonstrate, the private sector has developed and has been offering automated tax preparation services in the competitive market for several years, and so this service would not be a creative government innovation, and it would not avoid the problem of government competition with the private sector. And second, the threat of such a governmental service to the viability of Voluntary Compliance would, if anything, be exacerbated by these government strategies because they would fundamentally undermine the independent role of the individual taxpayer in the American system of taxation. Our uniquely taxpayer-centric American system, in which the taxpayer is the first mover in the income tax process and makes the initial determination of what they earned and what they owe, would be gone. It would instead become a government-centric system, with the government making the first tax determination, to which the taxpayer must then respond by accepting or challenging. This approach essentially would reverse the American system completely, flipping the presumption of that system it on its head and ending Voluntary Compliance. While that might be expedient and efficient for tax

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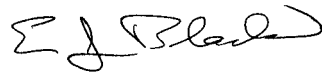
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collection authorities, it would substantially erode a basic right of our citizens and not be in the best interest of our Republic.

**Conclusion**

This public debate over the question of government's appropriate role vis-à-vis electronic tax preparation has gone on for years without conclusive resolution. As such, the development of the new Public-Private Partnership concept embodied in the proposed Agreement represents a critical breakthrough. The proposal put forward in the aforementioned Federal Register notice is a thoughtful, balanced, and responsible solution to the policy debate that has raged for these last five years. As the high-technology and electronic commerce trade association that for more than thirty years has championed free, fair and open market competition, representing industry players both large and small, CCIA enthusiastically salutes the proposed policy solution and Partnership, and looks forward to supporting its success.

Sincerely,



Ed Black  
President and CEO

Attachment: The Role of Government in a Digital Age, Joseph E. Stiglitz, Peter R. Orszag, Jonathan M. Orszag, October 2000)

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**CCIA**

Request for Input  
Report to the Franchise Tax Board  
Addendum

**For context and historical perspective:**

It should be noted that CCIA has testified on numerous occasions before the FTB over the last several years on a number of the questions that are being posed in this questionnaire. We hope that our feedback and expertise will be given more weight than it has been on occasion in the past.

The premise of the current FTB questionnaire is, in part, that the act of electronic submission of a completed tax return – known as electronic filing or “e-filing” – is indistinguishable from the act of electronically preparing a tax return, including the determination of individual tax liability. This confusion is greatly at odds with the facts. In reality, e-filing is well known and understood to be essentially a network transmission utility. Electronic tax preparation, on the other hand, involves interactive software transactions which include data entry and employs an algorithmic engine for determining the taxpayer’s actual tax liability. In short, these are entirely distinguishable and differentiated functions. The long-standing position of the FTB staff, including through its own public testimony over a period of at least four years, has been that the tax collection agency should perform both functions for the taxpayers of California.

**The Free File Alliance**

In 2002, the tax software industry offered to enter into a long-term, multi-year agreement with the Franchise Tax Board to provide free online tax preparation and e-filing services to needy California citizens, at no charge to the public treasury, leveraging a similar agreement which had been reached on the national level between the software industry and the Internal Revenue Service, and which was signed in October 2002. The FTB did not complete the discussions with the private sector and no California agreement was reached.

**Program Costs and Consumer Demands**

The FTB staff has provided no evidence that there is citizen demand for taxpayer-funded “direct to FTB” e-filing portal service, or for a State-provided online tax preparation service. Moreover, previous FTB staff claims that State-provided e-filing and electronic tax preparation services were being demanded by California taxpayers have proven to have no basis in fact. In public testimony in September 1999, FTB staff testified that the public was demanding such services. When asked under questioning by Members of the Franchise Tax Board what research had been conducted to

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## NetFile Report Franchise Tax Board

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substantiate these claims, it was admitted that no research proof existed, and that the basis for the claims was anecdotal only.

Despite years of extensive market research by various entities, no customer segment has ever been identified that: (1) is demanding that government provide services at taxpayer expense to electronically prepare and electronically file their tax returns for them; (2) nor has any customer segment identified the ability to electronically submit or file their returns for free directly to the State as being more motivating than the ability they already have to submit or file their returns for free through the private sector; and 3) no customer segment has been identified that indicates they would e-file only if they could use a “direct to the FTB” site, whether free or paid.

In contrast, survey research has appeared from time to time indicating taxpayers feel a lack of trust toward government tax-collection agencies, believing that the primary mission of such public agencies is to maximize revenue collections and enforce compliance, and do not trust such government tax agencies can be depended upon to fairly assist taxpayers in determining their lowest, lawful tax liability. Such documented citizen attitudes would appear to run counter to the undocumented anecdotal information cited by FTB staff to justify the expense of building, maintaining and operating taxpayer-funded online tax preparation and e-filing services to be provided by the State.

One of the many benefits of private-sector solutions as compared to government-provided products is that competition drives innovation and focus on customer needs and wants. Moreover, the separation from government of the privately offered electronic tax preparation and filing services provides confidence and assurance to taxpayers of privacy and independence in the preparation of their tax returns, with no conflict-of-interest in the determination of their individual tax liability. The confidence of taxpayers in the integrity and privacy of such private sector services is demonstrated by national statistics showing an adoption rate of more than one third of all tax filers choosing to electronically prepare and file their returns in the United States, the highest electronic voluntary compliance results of any nation. In contrast, where government provides these services as a function of public tax agencies, such as in Great Britain, Australia, or at the State level across the U.S., the public take-up rate for government-provided tax services on average does not exceed 3%.

### Cost Estimates

If the FTB NetFile program costs as little as has been claimed, it is the lowest cost online tax program of its kind in the world. The dramatic disparity between FTB cost claims and the actual costs for such systems in private-sector experience, as well as the similarly substantial costs experienced by all other government tax agencies anywhere in the world where this has been attempted, has brought considerable attention to the highly unusual cost numbers being cited by the FTB. It is that unique disparity that has resulted in the questions and doubts raised about the California numbers.

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No information has been provided by FTB staff to substantiate their tax system cost estimates. Part of the public debate about the FTB staff claims of flat fees per form is that such numbers are neither realistic nor complete because there are vastly different levels of complexity involved in providing different tax forms and functionality. Moreover, there is no way to externally determine the full scope of all direct and indirect FTB expenditures and resources required to create and host NetFile, and make it work at the volumes and customer service levels being promised.

#### Cost and System Architecture

Software and hardware infrastructure has to be designed to particular specifications, including anticipated total volume and capacity for simultaneous users. Building a system capable of handling 10,000 returns is completely different than building one capable of handling 1 million – and if the system is not developed initially to scale at that level, all investment will be wasted once the peak limits of the system are reached, because a new architecture will need to be built. It would be helpful to know what the design specifications and annual volume estimates were that the FTB used in developing NetFile because the sunk costs may be completely insufficient to handle the loads anticipated for year 2 or year 3. If so, taxpayers will be stuck with the cost of refurbishing the infrastructure to accommodate new peak volumes.

Saving money by leveraging the existing e-file platform also seems suspect, since there is much more involved in the design of a functional online tax preparation service than the e-file infrastructure. Aside from the software architecture to handle the user interface, calculations and scalability, there is also the hardware infrastructure of the network, routers, servers and data storage. Again, existing hardware may be sufficient for the very small volumes of taxpayers tested this year, but the infrastructure has to be designed and built to certain scale and anticipated volume specifications, which have not been disclosed.

There are also other costs that have not likely been accounted for in the FTB's estimates. Designing for security and taxpayer privacy is very expensive and a somewhat specialized engineering field. Security involves more than using 128-bit encryption, and the costs can exceed 25% of the total engineering budget for a particular design function. For example, the hardware and software should be designed with multiple lock-down protocols to recognize and prevent irregular online activity, and multiple layers of requests between devices for specific information to be sent in precise formats to differentiate legitimate activity from abuse. Routers must be designed and installed to allow only those systems designed to communicate with each other to do so, to prevent back doors and to block erroneous communications. 128-bit encryption is effective against external searches for data, but the FTB needs to explain how it has budgeted for the protection from internal abuses of taxpayer data. Private-sector systems are designed to identify and screen those with access to the system, track

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their behavior, and prevent irregular or inappropriate activities within the existing infrastructure.

It would also be helpful to know how the FTB has designed for data storage. Depending on the anticipated need for taxpayer access to data (for completing a return, starting a new return, reviewing a previous year's return) and employee access to data (for troubleshooting technical problems, etc.), there are advantages and disadvantages to using centralized storage or numerous segregated servers – and, again, volume, speed, anticipated use are all factors in the design. The existing data storage facilities at the FTB may be totally inadequate to meet the needs of a system handling even 200,000 returns. Taxpayers should know the true costs, even in the out years, rather than discover that new storage systems have to be designed and built to meet rising volume demands.

Another potential cost that has not been disclosed by the FTB in their estimate is the design for emergency continuity. Is there duplicity being designed into the software and hardware infrastructure? What are the processes and protocols for load sharing between overlapping systems as compared to having a back-up system for unanticipated problems. Without proper emergency continuity, taxpayers could again be left without access to the FTB web site for several hours on April 15 when other unanticipated problems arise.

Private-sector companies also spend substantial resources on Quality Assurance testing of each part of the hardware and software infrastructure, as well as performance testing – to determine whether the system can adequately handle the expected user load, software stability, accessibility to data storage by customers, the speed of the network and servers to find bottlenecks, etc. Is the FTB conducting independent testing of its infrastructure, taxpayer usability, security systems, wait times, software and hardware compatibility to ensure that everything is ready for the tax filing season?

#### *Protecting Privacy and Security*

Other than saying that NetFile uses 128-bit encryption, the FTB has not disclosed any information that suggests that it was developed with security models or standards similar to those used in the private sector. As Chairman Westly pointed out at the April 29 hearing, data security involves much, much more than the use of 128-bit encryption.

As outlined in question 2, data security is a complex and specialized IT field. Hardware, software, network, storage, routers and all other systems are specifically designed and tested with multiple layers of security and lock-down protocols to detect, analyze and prevent irregular activity in the system. Systems are designed to interact with each other with precise formats to help weed out unauthorized interference. Extensive third-party testing and audits are routinely performed to maintain security.

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## NetFile Report Franchise Tax Board

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When designing an online tax preparation and e-filing system where taxpayers are entering their most sensitive personal and financial information, new challenges arise that are unique to that environment. For example, all software has bugs that sometimes reveal themselves at inconvenient times – like in the middle of a tax return.

- Has the FTB designed for a secure environment for debugging capability during the preparation of a taxpayer return?
- What are the specifications for user verification for return users – to ensure that only the person who started – but didn't complete – a return has access to that financial information?
- What is the infrastructure for setting and/or changing access passwords?
- Is the taxpayer support built in to address those inevitable issues?
- What are the security procedures and protocols for FTB staff, which may have to access files to deal with error data, security logs, fraud prevention, and other patterns of activities that can help identify security holes?

Private-sector systems are specifically designed to identify employee access, track usage, identify irregular behavior, and prevent corruption of personal information files. All of these systems have to be engineered and designed based on anticipated volumes – have these been built into the FTB's cost estimates? What anticipated volumes were used for these estimates?

Designing for security is more complex than using encryption, which solves for only one kind of problem. And, unlike the FTB, private-sector companies bear the financial and legal risk of any compromise of taxpayer data or personal information. The FTB has no such risk and the taxpayer would have no recourse if there were problems with the NetFile program that contributed to error, fraud, theft or other abuse.

More specific questions or answers could be provided if we knew more about how the NetFile system was designed.

### *FTB Staff Interest In Further Mission Expansion*

As for the question about whether the State of California should take on a new role as regulator over the electronic tax preparation industry, it is unclear how this question, or our answer to it, would relate in any way to the question of whether the NetFile program is a success or failure, has insignificant or very high costs, and whether it is an experiment worth continuing. It is also unclear how a suggestion to further expand the mission, size and scope of the FTB staff relates to the question of whether the California State Budget can afford the cost of the FTB online tax preparation and e-filing systems and products. It would appear that any determination about such a staff request to further expand the growing mission would have to be evaluated based on its independent merit or lack thereof.

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NetFile Report  
Franchise Tax Board

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**CCIA**  
**MEMORANDUM**

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To: Lisa Crowe  
Chief, Filing Division  
Franchise Tax Board

FROM: Computer & Communications Industry Association (CCIA)

CC: Hon. Steve Westly  
Hon. Carole Migden  
Hon. Steve Peace

DATE: August 11, 2003

RE: CCIA Response to Request for Input on Report to Franchise Tax Board

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*I. Customer Service*

- 1. NetFile offers a “citizen-to-government” e-filing experience. From your perspective, should taxpayers have the option of submitting their tax return information from their home computers directly to the FTB? Please explain.*

Given the current context, the question is actually whether taxpayers should be able to submit their tax return information as part of a state tax preparation service. We strongly oppose such a system.

A state-run online tax preparation service creates a number of serious legal and policy concerns. As a primary matter, there is an inherent conflict of interest when a government acts as both tax preparer and tax collector. An agency seeking to maximize tax revenues collected has very different motivations than taxpayers, who are conversely seeking to minimize their tax bills. Taxpayers are also unlikely to be aware that a government tax agency can use their personal, private tax information for marketing purposes, or give that information to a for-profit company for marketing purposes. Neither are they likely to be aware that they are increasing their chances for audit, or that they are making themselves a more inviting target for auditors by providing more information than their non-NetFile using counterparts. NetFile taxpayers are also more likely to be subject to inter-governmental agency data mining, where their personal tax and income information may well be shared with bureaucrats or investigators at other government agencies where the same privacy and security standards do not exist.

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NetFile Report  
Franchise Tax Board

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The private sector is appropriately and uniquely positioned to provide the best service – offer the latest innovations and technology, provide the most robust security available, offer the best customer service – and to do so at no additional expense to the public treasury.

2. *Since the implementation of NetFile in April, the FTB's customer service impact relative to this new program has been minimal. Describe any issues or concerns you may have with respect to the FTB providing customer service for NetFile.*

We have three primary concerns:

First, the conflicts of interest we have outlined above. The FTB, in its role as tax collector, has little incentive to provide the best customer service for tax preparation that helps minimize the tax bills of California taxpayers.

Second, since the private sector already provides these services, the government is incurring unnecessary, added costs and displacing public funds that could be used for more critical budget imperatives such as schools, roads, and public safety.

Third, a competitive private sector is uniquely positioned to provide the best customer service for customers in order to gain market share.

## II. *Cost*

1. *FTB staff reported that costs for the development of NetFile are roughly \$100,000 per form. These costs are relatively low due to the FTB's ability to leverage the existing e-file platform, which has been in place for a number of years. Prior to and at the April 29 board meeting, the media and testimony suggested that NetFile costs were much higher. Please share any comments or information you may have about these differences.*

The FTB's current estimate of only \$100,000 per tax form to launch the system clearly does not fully account for operational costs and the cost of e-commerce services.

Furthermore, like many government projects, this program would likely be subject to large unforeseen expenses and cost overruns. The state government's system is simply not subject to the same regulatory and market discipline as a private sector system. There is no penalty for failure, such as falling stock prices or bankruptcy, and the government system need to achieve any level of efficiency or market success to survive in the marketplace. And unfortunately, many government projects continue to completion, regardless of gross cost overruns, as bureaucratic momentum is normally difficult to stop once a project is initiated.

Even if one accepts the \$100,000 per form as accurate, it is difficult to understand the basis for pursuing this project at all. Regardless of its cost, NetFile an entirely

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superfluous and unnecessary expenditure, as the same services are already provided by a variety of competitive, high-quality, low-cost or no-cost private sector companies. Given the State of California's severe budget crisis, this duplication of services is wasteful and detrimental to fiscal stability. The private-sector companies who created this service continue to provide the level of service, innovation and security that only the commercial sector can offer.

The government agency programs can't compete with the private-sector tax preparation product on any level – in quality, user-friendliness, privacy, security, customer service, or any other element. Even when it comes to cost, the price of a private-sector preparation services is often a better value for taxpayers. In states that offer the service “for free,” all taxpayers – even those that do not even file online – are paying to support that system.

*III. System Capacity and System Failure*

- 1. Concerns have been expressed regarding the state's ability to provide sufficient capacity to meet demand for electronic filing. At the April 29 board meeting, the FTB explained that capacity issues experienced on April 15 were related to downloading blank tax forms, but the ability to accept all electronically filed tax returns was not impacted. If you have a concern about the FTB's ability to provide sufficient system capacity for NetFile, please explain.*

Irrespective of the exact nature of this particular incident, it is illustrative of the lack of expertise of the FTB in providing e-commerce services and the likelihood that a government-provided service will be subject to failures. Unlike a private-sector business – which could be ruined by a significant service failure – a government entity is not subject to the same discipline and rigors of the marketplace. At worst, a government agency would be forced to discontinue the service and leave the aftermath of its debacle for the private-sector providers to deal with. Furthermore, given budget constraints, government services will invariably be encouraged to provide only a minimal level of service and capacity. Commercial services, which have been in business in this market for years, have consistently improved their products over the years in order to provide a glitch-free, reliable service – whether at a reasonable price or in some cases for free, through their public-private partnership with the federal and state governments.

Furthermore, the FTB's failure on April 15<sup>th</sup> should not be minimized. The consumers who were unable to download the necessary forms would probably not be reassured by the fact that the filing function remained intact. Such outages are also not uncommon for government-provided services – the Inland Revenue agency of the United Kingdom was forced to take down its own tax preparation service for more than a month of the tax season last year in response to massive security failures.

Due to the nature of tax filing deadlines, electronic tax services experience very high demand levels during a very short period of time. It is costly for taxpayers to fund the year-round cost of a service used only by a small percentage of taxpayers, a very

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small percentage of the time. As a result, even though NetFile was used by only a few taxpayers during a few days of the year, it still failed some of those at this most crucial point.

2. *Has your company experienced “down-time” on your website? Has it had an impact on taxpayers? If yes, please describe.*

This question is irrelevant as CCIA does not provide taxpayer services.

IV. *Liability for Taxpayer Data (Security, Disclosure, Confidentiality, and Risk)*

1. *NetFile was developed using security models and standards similar to those used in the private sector. Describe any issues or concerns you have with regard to the FTB’s ability to safeguard taxpayer information in relation to its NetFile program. Also, please describe any issues your company has experienced in safeguarding taxpayer information.*

We have a number of concerns with the FTB’s ability to safeguard taxpayers’ information. First, government agencies are not subject to the same federal taxpayer privacy laws as private-sector companies. Second, the conflict of interest issues raised earlier mean the information that taxpayers provide to the NetFile program could be used later against them in an audit situation or for other law enforcement purposes. The FTB is also permitted by law to share the information it gathers with city and county tax agencies seeking to practice computer "data mining" techniques to target investigations to find more potential tax revenue from individuals. Furthermore, it is an added expense for the FTB to maintain security standards as technology changes – yet another unaccounted expense to add to the long list.

2. *The FTB’s use of information that it obtains from taxpayers is strictly governed by law. For commercial e-file products, should information taxpayers provide in completing their returns be available for nontax purposes? Please explain.*

In actuality, private-sector tax companies are governed by a much stricter set of laws than state tax agencies. The “strict governance” of tax agencies consists mostly of punishment of government workers – such as termination – for abuses. In contrast, federal laws strictly constrain private-sector companies and establish serious penalties on any enterprise for failure to comply.

3. *Should the State of California have a role in regulating the electronic tax preparation industry with regard to security and privacy? Please explain.*

Existing federal law holds private-sector tax preparation companies to a high standard of privacy and security. And more significantly, private-sector companies are subject to consumer demand and accountability for failure to provide reliable, secure services. In the event a company charges excessive fees or fails to live up to privacy or security commitments and expectations, consumers can choose from many vendors in the marketplace. Private companies are also subject to private causes of action for

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failure to comply with terms of service. Private-sector players must constantly strive to keep their standards at the highest level possible because falling short will result in a loss of market share or potentially business failure. The government is certainly not at the mercy of such powerful forces.

V. *Free File Alliance*

1. *Describe any significant advantages for taxpayers that the Free File Alliance has over NetFile. Describe any significant advantages for taxpayers that the Free File Alliance has over FTB's existing Memorandum of Agreement Program for free e-file offerings.*

We can identify a number of specific ways that taxpayers benefit from the Free File Alliance model when compared to the NetFile program or any state-run system.

- There is no conflict of interest in that the collector is not assisting in the preparation of tax returns;
- Private companies maintain higher standards for security and privacy. Taxpayers get the latest technology at no additional expense;
- Tax dollars are not spent on duplicating services that are widely available in the private sector, and for free to low-income users;
- Taxpayers benefit from a competitive private sector that provides the most innovative products, particularly when not threatened by government encroachment on its market;
- The Free File Alliance is a proven success; the Free File Alliance encourages more taxpayers to file electronically. Taxpayers like and trust the FFA model, as demonstrated by the considerable success at the federal and state levels. E-filing is up considerably at the federal level and in each of the six states that have adopted the model – and at rates that are much higher than NetFile.

The Free File Alliance is a model of what private industry and government can accomplish together rather than in competition – to benefit consumers and keep taxpayer costs low.

2. *Over the last three years, the FTB has averaged 24% growth in the number of online returns received. If the FTB participated in the Free File Alliance at the state level for the 2003 tax year, what greater growth of new online state returns would you expect from California? Please include your methodology for determining the increase.*

As a practical matter, a growth rate from a miniscule figure to a slightly larger, albeit still minuscule number is not truly significant. The FTB's 2-EZ form was available throughout the previous tax year and was used by 25,000 out of 4 million taxpayers in California, a utilization rate of a little over .6%. Clearly, this does not represent a great value proposition to the taxpayers funding the system.

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Furthermore, even the 24% growth rate of the NetFile program pales in comparison to the success of the Free File Alliance, which the IRS credits with a 90 percent increase in e-filing over the previous year, when there was no FFA. And the FFA figures represent significant increases in a manner that will actually lead to lower processing costs for the tax agency, unlike in the NetFile situation. Similarly, states using the FFA model saw sharply higher increases in e-filing than did their counterparts with only a government-offered online tax preparation and filing system. Three states that have joined the FFA (New York, Massachusetts and Michigan) reported an average increase in e-filing of 49% in just the first year of the program. Based on these figures, we would expect at least a similar rate of growth for California.

Taxpayers trust private-sector products because they are recognizable brands and may have been around for several years. Independent reviews and evaluations of these products have consistently shown them to be accurate and reliable. As a result of the industry's often substantial investment in advertising and marketing, taxpayers are more receptive to the products offered through the Free File Alliance. They also respect the resourcefulness of the government leaders who provide them with access to quality services without the expenditure of tax dollars.

The FTB has indicated that the cost savings of the NetFile program to the state is a solely a function of the efficiencies created by e-filing. They have also acknowledged that no government bureaucrats will be terminated as a result of an increase in e-filing; those employees will be transferred to other departments and continue to be a burden on the state budget. If measured as a function of e-filing "efficiencies", this cost savings could be achieved in any number of ways; all one must do is increase the e-file volume, which could be achieved by the industry donating more free returns or more accountants filing online. In fact, it would be more cost effective if the FTB paid a private company to offer e-filing for free to its taxpayers.

3. *NetFile provides basic math and tax look-up features, and is currently available for the more simple tax returns. Is there any segment within the taxpayer population that you feel NetFile is appropriate for? Please explain.*

Because of the above mentioned conflict of interest, privacy and security issues, and cost concerns, tax preparation is most appropriately left as a private-sector activity. The private sector can partner with government to make it available to those who need assistance.

#### *Other Information*

*Please feel free to provide any other information, concerns, suggestions, or alternatives with respect to NetFile and the Free File Alliance.*

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# **THE ROLE OF GOVERNMENT IN A DIGITAL AGE**

**JOSEPH E. STIGLITZ  
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**COMMISSIONED BY THE COMPUTER &  
COMMUNICATIONS INDUSTRY ASSOCIATION  
OCTOBER 2000**

## About This Study

This study was commissioned by the Computer & Communications Industry Association (CCIA) as an independent analysis of the appropriate role for government in an information economy. The views and opinions expressed in this study are solely those of the authors and do not necessarily reflect the views and opinions of CCIA.

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## Executive Summary

- Existing rules for evaluating governmental activities need to be updated to reflect the ongoing shift toward a digital economy. Industrial developments at the beginning of the 20<sup>th</sup> century required major rethinking of the role of government, as evidenced by the creation of the Federal Reserve System, the Sherman and Clayton Anti-Trust Acts, and the Constitutional amendment allowing a Federal income tax. A substantial review is also warranted now.
- As President Clinton has emphasized, for the government, “knowing when to act and – at least as important – when not to act, will be crucial to the development of electronic commerce.” The purpose of this study is to examine when the government should act and when it should not act in a digital economy. In particular, our focus is what services the government should and should not be providing on-line.
- As the report discusses, the theoretical underpinnings behind private versus public production shift as the economy moves toward a digital one. On one hand, the public good nature of production in a digital economy, along with the presence of network externalities, may suggest a larger public role than in a bricks-and-mortar economy. On the other hand, an information-based economy may also improve the quality and reduce the cost of obtaining information, which by itself makes private markets work better than before. Furthermore, government failure may be even more pronounced in the context of rapidly moving information-laden markets than in traditional bricks-and-mortar markets.
- The lack of clear theoretical guidance regarding the separation between government and business in a digital economy makes decision-making rules all the more important. OMB Circular A-76 and other existing norms for government provision of goods and services need to be updated for the digital age. We therefore devise a set of twelve principles for government action in a digital economy (see box below), along with a decision tree for policy-makers (see page 75) to use when evaluating new government activities. The principles are divided into three categories: “green light” activities that raise few concerns; “yellow light” activities that raise increasing levels of concern; and “red light” activities that raise significant concern.
- The report applies these principles to five case studies, including the Department of Labor’s on-line job market information system, the United States Postal Service eBillPay program, private-sector dissemination of legal information, on-line tax preparation software, and a fee-based search engine from the National Technical Information Service. In some cases (e.g., the America’s Job Bank), the government seems to have struck the appropriate balance among conflicting pressures. In other cases (e.g., eBillPay), the government seems to have overstepped the boundaries that should apply to public provision of goods and services.

## **Principles for On-Line and Informational Government Activity**

### ***"Green Light" for On-Line and Informational Government Activity***

Principle 1: Providing public data and information is a proper governmental role

Principle 2: Improving the efficiency with which governmental services are provided is a proper governmental role

Principle 3: The support of basic research is a proper governmental role

### ***"Yellow Light" for On-Line and Informational Government Activity***

Principle 4: The government should exercise caution in adding specialized value to public data and information

Principle 5: The government should only provide private goods, even if private-sector firms are not providing them, under limited circumstances

Principle 6: The government should only provide a service on-line if private provision with regulation or appropriate taxation would not be more efficient

Principle 7: The government should ensure that mechanisms exist to protect privacy, security, and consumer protection on-line

Principle 8: The government should promote network externalities only with great deliberation and care

Principle 9: The government should be allowed to maintain proprietary information or exercise rights under patents and/or copyrights only under special conditions (including national security)

### ***"Red Light" for On-Line and Informational Government Activity***

Principle 10: The government should exercise substantial caution in entering markets in which private-sector firms are active

Principle 11: The government (including government corporations) should generally not aim to maximize net revenues or take actions that would reduce competition

Principle 12: The government should only be allowed to provide goods or services for which appropriate privacy and conflict-of-interest protections have been erected

- The appropriate role of government in the economy is not a static concept: It must evolve as the economy and technology do. As economic activity shifts toward information-intensive goods and services, public policy is being presented with a series of challenges, from protecting privacy to the appropriate taxation of on-line sales and jurisdictional concerns.
- Policy-makers, analysts, and others may disagree with some of the principles and conclusions reached in this analysis. But it will have served its purpose if it helps to spur debate over these issues, regardless of whether all its conclusions are accepted.

# THE ROLE OF GOVERNMENT IN A DIGITAL AGE

Joseph E. Stiglitz, Peter R. Orszag, and Jonathan M. Orszag  
October 2000

## Introduction

Innovations in information technology (IT) have spurred significant changes in the U.S. economy over the past two decades. Firms have invested heavily in computers and peripheral equipment, along with software, advanced telecommunications systems, and other information technology. These investments have facilitated significant improvements in inventory systems, reduced shipping costs, and allowed more effective responses to changes in consumer preferences – thus improving the efficiency of the production system. At the same time, the American public is increasingly turning to computers and the Internet for a variety of purposes, from receiving an education to investing in the stock market or buying a car.

These developments are potentially momentous for the economy and for our broader society. As Alan Greenspan recently stated, “When historians look back at the latter half of the 1990s a decade or two hence, I suspect that they will conclude we are now living through a pivotal period in American economic history.”<sup>1</sup> To be sure, technological improvements have been ongoing over an extended period of time. The invention of electricity and the internal combustion engine

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<sup>1</sup> Alan Greenspan, “The revolution in information technology,” speech delivered to the Boston College Conference on the New Economy, March 6, 2000.



in the 1870s, for example, represented dramatic economic and social innovations.<sup>2</sup> But the changes engendered by advances in information technology also appear to represent a relatively rare historical development. Professor Paul David of Stanford University, for example, has compared the spread of the computer at the end of the 20<sup>th</sup> century to the spread of electricity at the end of the 19<sup>th</sup> century.<sup>3</sup>

The “pivotal period” that Alan Greenspan suspects we are currently experiencing has important implications not only for private-sector firms and American consumers, but also for the government. Just as the industrial developments at the end of the 19<sup>th</sup> century required major rethinking of the role of government – as evidenced by the creation of the Federal Reserve System (1913), the Sherman (1890) and Clayton (1914) Anti-Trust Acts, and the Constitutional amendment allowing a Federal income tax (1913) – a substantial review is warranted now.

Extant rules and norms for delineating what government should and should not do seem inadequate to the task, since they were not developed for the emerging electronic world. As Chairman Greenspan noted in a somewhat different context, today’s economy is “one that none of us has even seen before, and indeed it may be unprecedented in our history... The type of policy we have to devise has to reflect the nature of how the new economy is working. A

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<sup>2</sup> Some analysts argue that the inventions at the end of the 19<sup>th</sup> century were much more significant than the current information technology innovations. See, for example, Robert J. Gordon, “Does the ‘New Economy’ Measure up to the Great Innovations of the Past?” *Journal of Economic Perspectives*, forthcoming. We do not find it necessary to compare the significance of current innovations to those of the past, which is the focus of Gordon’s analysis; the key point for our purposes is that innovations in information technology raise new public policy concerns.

<sup>3</sup> See, for example, Paul David, “The Dynamo and the Computer: An Historical Perspective on the Modern Productivity Paradox,” *American Economic Review*, May 1990, pages 355-361, and “Computer and Dynamo: The Modern Productivity Paradox in a Not-Too-Distant Mirror,” Center for Economic Policy Research, Stanford University, Reprint Number 5, July 1995. Bob Davis and David Wessel of the *Wall Street Journal* extend the argument to include, for example, comparisons between the spread of high school education at the beginning of the 20<sup>th</sup> century and the spread of college education at the beginning of the 21<sup>st</sup> century. See Bob Davis and David Wessel, *Prosperity: The Coming 20-Year Boom and What It Means to You* (Random House: New York, 1998).

number of the old tools which we relied upon don't have relevance to this.”<sup>4</sup> As the *Wall Street Journal* recently added, “The country hasn’t been in such a state since the early part of last century, when a set of decisions shaped the relationship between the industrialized economy and the government for decades to come.”<sup>5</sup>

The questions facing policy-makers in considering what the government should and should not produce in a digital age are particularly difficult, since the line between internal efficiency improvements and the provision of goods and services to the public often becomes blurred. For example, if travel services are re-engineered and enhanced for government employees, why not increase economies of scale, and thereby reduce costs further for the government, by offering the same services to general citizens? Similarly, if government network infrastructure expands, and bulk communications service purchasing enables low prices, why not utilize unused capacity and serve as an Internet Service Provider (ISP) to the public, or resell communications services to the public?

In short, the spread of the Internet and other information technologies raises important new questions about the appropriate role for government in producing goods and services, and in regulating private-sector activities. As President Clinton emphasized in 1997, “Governments can have a profound effect on the growth of electronic commerce. By their actions, they can facilitate electronic trade or inhibit it. Knowing when to act and -- at least as important -- when

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<sup>4</sup> Testimony before the Senate Banking Committee, as quoted in Richard Stevenson, "Pondering Greenspan's Next Move," *The New York Times*, Tuesday, March 21, 2000, page C1.

<sup>5</sup> Bob Davis and Gerald Seib, "Policing a Wildfire: Technology Will Test a Washington Culture Born in Industrial Age," *Wall Street Journal*, May 1, 2000, page A1.

not to act, will be crucial to the development of electronic commerce.”<sup>6</sup>

The purpose of this study is to examine when the government should act and when it should not. In particular, our principal focus is what services the government should and should not be providing on-line. The study thus serves several purposes, including:

- Highlighting the need for re-thinking the role of government by policy-makers, the press, the business community, and academics;
- Providing policy-makers with a policy framework for evaluating whether new governmental activities would or would not be socially beneficial; and
- Using that framework to examine several recent case studies of existing or proposed public-sector activities.

The study is organized as follows: The first part provides important background to our exploration of the appropriate role for government in a digital economy. It examines the impact of information technology on the economy, business practices, and the government; the theory of the government’s role in the economy; and current government policy regarding commercial activities. The second part delineates 12 specific principles for governmental activities in a digital economy, including three “green light” principles regarding governmental activities that should elicit little concern, six “yellow light” principles regarding activities that should be undertaken only with significant caution, and three “red light” principles regarding activities that should generally not be undertaken by the government. The third part examines several case

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<sup>6</sup> Memorandum from President Clinton to the Heads of Executive Departments and Agencies, “Electronic Commerce,” July 1, 1997, available at <http://www.whitehouse.gov>.

studies against which these principles can be judged. A short final section offers conclusions and policy recommendations.

**PART I:**  
**INFORMATION**  
**TECHNOLOGY AND**  
**GOVERNMENT POLICY**

## **I. The Impact of Information Technology on the Economy, Business, and Government**

Information technology production and use are growing rapidly. By July 2000, for example, nearly 360 million people worldwide were connected to the Internet, up from 185 million people a year earlier.<sup>7</sup> In 1990, information technology industries (including hardware, software, and communications) accounted for 5.8 percent of U.S. gross domestic income.<sup>8</sup> By 1999, those industries accounted for an estimated 8.2 percent of gross domestic income. The purpose of this section is to explore how this rapid growth in information technology has affected the economy, businesses, and the government.

### *Impact of information technology on the economy*

In the long run, productivity growth is the key to improving living standards. The most important contribution that investments in information technology can make to economic performance is thus to improve productivity.

Throughout the 1980s and 1990s, firms made substantial investments in information technology. In 1996, for example, telecommunications firms invested an average of \$29,236 in information technology *per worker*. Non-depository financial institutions invested an average of \$18,129, and radio and television firms invested an average of \$17,512.<sup>9</sup>

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<sup>7</sup> Nua Internet Surveys, available at [http://www.nua.ie/surveys/how\\_many\\_online/world.html](http://www.nua.ie/surveys/how_many_online/world.html)

<sup>8</sup> U.S. Department of Commerce, *Statistical Abstract of the United States 1999*, Table 917, page 579.

<sup>9</sup> Council of Economic Advisers, *Economic Report of the President 2000* (Government Printing Office: Washington, 2000), Table 3-2.

Until the mid-1990s, however, the dramatic investments that firms were making in IT did not appear to translate into improvements in productivity. Indeed, Robert Solow, a Nobel-prize-winning economist at the Massachusetts Institute of Technology, famously quipped that, “We see computers everywhere but in the productivity statistics.”<sup>10</sup>

By the latter half of the 1990s, on the other hand, the massive IT investments *did* appear to be making a substantial contribution to improved economic performance. Productivity growth increased from an average of 1.6 percent per year between 1991 and 1995 to 2.7 percent per year between 1996 and 1999. As Chairman Greenspan noted, “until the mid-1990s, the billions of dollars that businesses had poured into information technology seemed to leave little imprint on the overall economy...The full value of computing power could be realized only after ways had been devised to link computers into large-scale networks. As we all know, that day has arrived.”<sup>11</sup>

One recent study concluded that investments in IT and efficiency improvements in the production of computers explain more than two-thirds of the increase in productivity growth between the early 1990s and the late 1990s.<sup>12</sup> In particular, productivity growth increased by 1.1 percentage points per year between 1991-1995 and 1996-1999 (from 1.6 percent per year to 2.7 percent per year). Of that 1.1 percentage point increase, 0.5 percentage points can be explained by investments in information technology and another 0.2 percentage points can be explained by

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<sup>10</sup> Robert M. Solow, “We’d Better Watch Out,” *New York Times Book Review*, July 12, 1987, page 36.

<sup>11</sup> Alan Greenspan, “The revolution in information technology,” speech delivered to the Boston College Conference on the New Economy, March 6, 2000.

<sup>12</sup> Stephen Oliner and Daniel Sichel, “The Resurgence of Growth in the Late 1990s: Is Information Technology the Story?” Federal Reserve Board of Governors, Finance and Economics Discussion Series, 2000-20, March 2000.

improved efficiency in computer and semi-conductor production. Thus, 0.7 percentage points of the 1.1 percentage point total increase was directly connected to information technologies.<sup>13</sup>

The disproportionate role played by information technology in bolstering aggregate productivity growth reflects, at least in part, phenomenal efficiency improvements within the sector itself. Between 1990 and 1997, for example, growth in output per worker in industries producing information technology goods and services averaged 10.4 percent, relative to 1.4 percent for the private non-farm economy as a whole.<sup>14</sup> One recent study documents productivity growth of 42 percent per year between 1995 and 1999 in the production of computers.<sup>15</sup>

The new information technologies may have induced not only higher productivity growth, but also more *stable* growth. For example, one of the key uses of information technologies has been in the area of logistics systems. A more efficient transportation system reduces the time required in sourcing, producing, and distributing goods, as well as the error rates in the supply chain.<sup>16</sup> It also reduces the inventories that firms must hold. The reduction in inventory holdings relative to sales over the past thirty years has been dramatic. The average lead-time for ordering materials and supplies in advance of production has declined from 72 days between January 1961 and

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<sup>13</sup> Stephen Oliner and Daniel Sichel, "The Resurgence of Growth in the Late 1990s: Is Information Technology the Story?" op. cit., Table 5.

<sup>14</sup> U.S. Department of Commerce, *The Emerging Digital Economy: II*, Table 3.2, available at <http://www.ecommerce.gov>.

<sup>15</sup> Robert Gordon, "Has the 'New Economy' Rendered the Productivity Slowdown Obsolete?" Northwestern University, June 14, 1999. It is worth noting, however, that Professor Gordon's paper suggests that there has been no cyclically-adjusted productivity growth increase in non-durable sectors that *use*, as opposed to produce, computers. Indeed, Gordon is skeptical of the "new economy" hypothesis precisely for this reason. As he argues, "Outside of durable manufacturing, the New Economy has been remarkably unfruitful as a creator of productivity growth." Gordon, "Does the 'New Economy' Measure up to the Great Inventions of the Past?" op. cit., page 46.

<sup>16</sup> U.S. Department of Transportation, *U.S. Freight: Economy in Motion 1998*, page 4.



December 1983 to less than 50 in 1997.<sup>17</sup> Total manufacturing and trade inventories have fallen from roughly 1.6 times monthly sales in the 1960s and 1970s to 1.3 times currently.<sup>18</sup>

These lower inventories have a variety of economic benefits, including:

- Reduced inventory carrying costs. The reduction in the inventory-sales ratio over the past three decades implies a substantial decline in the inventories firms must hold to meet current sales. Given recent levels of total manufacturing and trade sales, for example, inventories are roughly \$260 billion lower than they would have been without the improved inventory management.<sup>19</sup> The associated reduction in carrying costs allows more capital to flow into productive equipment and machinery.
- Reduced business cycle fluctuations. Historically, fluctuations in inventory investment have contributed significantly to business cycle fluctuations. One study concludes that more efficient inventory investment has played a critical role in reducing the variability of output growth over the past 15 years.<sup>20</sup> Alan Greenspan has added that "the dramatic changes in information technology that have enabled businesses to embrace the

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<sup>17</sup> National Association of Purchasing Managers, series on average lead time for ordering production materials.

<sup>18</sup> Council of Economic Advisers, *Economic Report of the President 2000* (Government Printing Office: Washington, 2000), Table B-55.

<sup>19</sup> In March 2000, for example, total manufacturing and trade inventories were \$1,166 billion. If the inventory-sales ratio were 1.6 (roughly its level at the end of the 1960s), total inventories would instead have been \$1,426 billion, or roughly \$260 billion higher than their current level.

<sup>20</sup> Margaret M. McConnell, Patricia C. Mosser, and Gabriel Perez Quiros, "A Decomposition of the Increased Stability of GDP Growth," Federal Reserve Bank of New York, *Current Issues in Economics and Finance*, September 1999.

techniques of just-in-time inventory management appear to have reduced that part of the business cycle that is attributable to inventory fluctuations...."<sup>21</sup>

In addition, investments in information technology may produce benefits that are not measured in the traditional statistics on productivity or GDP. For example, if new information technologies make it more convenient to purchase a book (e.g., by facilitating access to an impressive array of book titles on-line at any hour of the day), the added convenience to consumers of purchasing any given book is not directly captured in the productivity statistics. As Professor Alan Blinder of Princeton University recently wrote, "Retailing over the Internet may offer many benefits to consumers, such as easier comparison shopping, removal of travel costs, and 24-hour availability. But such gains will never be counted in GDP, and so will never appear in the productivity statistics."<sup>22</sup>

### *Impact of information technology on business*

The aggregate economic benefits of information technology – reflected in higher productivity growth and a reduction in the degree of economic fluctuation – arise from the improvements that such technology facilitates in the production of goods and services in sectors ranging from the media to banking, and from passenger travel to automobile manufacturing. This section briefly explores some of the ways in which information technology is changing the way businesses interact with consumers and the way businesses interact with other businesses.

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<sup>21</sup> Alan Greenspan, "New Challenges for Monetary Policy," Speech, Jackson Hole, Wyoming, August 27, 1999.

<sup>22</sup> Alan Blinder, "The Internet and the New Economy," Brookings Institution Policy Brief #60, June 2000, page 5.

## Business-to-consumer e-commerce

E-commerce is fundamentally changing the relationship between businesses and consumers, by increasing convenience and choice while saving time and money. Private-sector forecasts suggest that e-commerce will continue to grow rapidly; Internet retailing – which was estimated to be \$5.5 billion in the second quarter of 2000 – may rise to as high as \$80 billion by 2002.<sup>23</sup>

Four industries that are being dramatically altered by the e-commerce boom are:

- The Book Industry. One prominent example of a retail “e-business” is Amazon.com, which became the first Internet retailer in the on-line book selling market. The emergence of Amazon forced its “bricks and mortar” competitors (e.g., Barnes and Noble) to reconsider their own e-commerce strategies. As a virtual retailer, Amazon has no physical store infrastructure. According to the Department of Commerce, rent and depreciation represent less than 4 percent of Amazon’s sales, compared to 13 percent, on average, for traditional retailers.<sup>24</sup> Amazon also has lower labor costs and less capital tied up in inventory: book turnover averages 20-40 times per year relative to two to two-and-a-half times per year, on average, for traditional retailers.<sup>25</sup> As a result, Amazon is able to reduce the sales price of books. Indeed, a study by Professors Erik Brynjolfsson and Michael Smith of MIT found that prices for books and CDs on-line are 9 to 16 percent less expensive than in conventional outlets.<sup>26</sup> Lower prices, furthermore, have

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<sup>23</sup> Forrester Research, Inc. “Post-Web Retail--Market Overview,” September 1999, and Department of Commerce, Bureau of the Census, “Retail E-commerce Sales in Second Quarter 2000 Increased 5.3 Percent from First Quarter 2000, Census Bureau Reports,” August 31, 2000.

<sup>24</sup> U.S. Department of Commerce, *The Emerging Digital Economy*, Appendix 5, page 9, available at <http://www.ecommerce.gov>.

<sup>25</sup> Ibid.

<sup>26</sup> Erik Brynjolfsson and Michael Smith, “A Comparison of Internet and Conventional Retailers” *Management Science*, April 2000. However, another study found that 107 titles sold by 13 on-line and two physical bookstores had essentially the same cost. See Karen Clay, Ramayya Krishnan, Eric Wolff, and Danny Fernandes, “Retail

spurred a substantial increase in volume. In 1999, Amazon's revenue totalled \$1.6 billion, up 168 percent from 1998.<sup>27</sup> With 20 million customers in 160 countries, Amazon has clearly changed the dynamics of the book-selling industry.<sup>28</sup>

- Travel Planning Industry. From driving directions to hotel prices, the Internet has changed the way people obtain travel information. The largest on-line travel business is the sale of airline tickets. In 1996, consumers bought \$276 million worth of airline tickets on-line. In 1999, on-line travel sales reached an estimated \$9.4 billion – or 12.3 percent of the amount spent in the U.S. on air travel.<sup>29</sup> Forrester Research predicts that on-line travel purchases will quadruple, to \$40.7 billion, by 2003.<sup>30</sup> As in the book-selling example, on-line ticket processing offers cost savings. For example, according to the Air Transport Association of America, it costs an average of \$6 to \$8 to process an airline ticket booked by a travel agent, relative to just \$1 for a customer-booked “electronic ticket.” Airlines are also using the Web to implement more sophisticated pricing strategies. For instance, “e-fares” allow airlines to sell tickets to leisure travelers on flights that have a large number of open seats – thereby price discriminating among different types of customers to fill available capacity. As the Department of Commerce noted: “Every Monday or Tuesday, American Airlines looks at its yield management results and picks out low-performing markets. Midweek, more than one million

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Strategies on the Web: Price and Non-price Competition in the On-line Book Industry,” Working Paper, December 1, 1999, available at <http://dnet.heinz.cmu.edu/dcsrg/books/papers/paper1.pdf>.

<sup>27</sup> Standard & Poor, Amazon.com Stock Report, April 22, 2000. Available at: <https://trading.etrade.com/cgi-bin/gx.cgi/applogic+ResearchStock>.

<sup>28</sup> See About Amazon.com at <http://www.amazon.com>

<sup>29</sup> E. Scott Reckard, “Threatened by the Web, Travel Agents Adopt New Tactics,” *Los Angeles Times*, April 30, 2000.

<sup>30</sup> E. Scott Reckard, “Threatened by the Web, Travel Agents Adopt New Tactics,” op. cit. Jupiter Communications forecasts somewhat lower growth in on-line travel sales: they predict on-line travel purchases to reach \$28.2 billion in 2005.

'NetSAAver' subscribers receive an e-mail from American Airlines listing special discounted fares for travel in selected markets during the upcoming weekend. The NetSAAver program has generated tens of millions of incremental dollars for the airline since its launch in March 1996."<sup>31</sup> As a result of cost savings and revenue enhancements from the Internet, Merrill Lynch estimates that Delta Airlines will benefit by as much as \$500 million from e-commerce over the next five years.<sup>32</sup>

- The Expedited Freight Industry. One beneficiary of the growth in e-commerce has been the expedited freight industry. Indeed, *Forbes* recently stated that UPS was the "missing link in the burgeoning world of e-commerce."<sup>33</sup> *Business Week* similarly described, "UPS delivery folks as the foot soldiers of the dot.com revolution."<sup>34</sup> Transportation Secretary Rodney Slater has recognized the crucial role of express services in a digital world, arguing that "the time-definite, point-to-point delivery needs of e-commerce require an even more flexible and resilient transportation network...You can order 'Steaks from Omaha' on-line, but you can't download them to your plate. E-commerce delivery still requires transportation to move products from the warehouse to your house."<sup>35</sup> Reflecting the core role of express services in the rapid growth of e-commerce, the number of packages per day shipped by on-line vendors is expected to rise from 650,000 in 1999 to 4,200,000 in 2003 – an annual growth rate of 59.4 percent.<sup>36</sup>

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<sup>31</sup> U.S. Department of Commerce, *The Emerging Digital Economy*, page 29, available at <http://www.ecommerce.gov>.

<sup>32</sup> Merrill Lynch, *e-Commerce: Virtually Here*, April 1999, page 43.

<sup>33</sup> *Forbes*, "Logistics in Brown," January 10, 2000.

<sup>34</sup> *Business Week*, "Out of the Box at UPS," January 10, 2000.

<sup>35</sup> Remarks of Secretary of Transportation Rodney Slater to the Executive Forum on "Delivering E-Commerce," Atlanta, Georgia, February 11, 2000.

<sup>36</sup> Forrester Research, Inc., available at <http://www.forrester.com>

- The Media Industry. The Internet has made it possible for consumers to receive news from around the world. Today, there are approximately 4,500 newspapers available on-line, with approximately 65 percent based in the United States.<sup>37</sup> There are hundreds, and perhaps thousands, of television stations with Web sites. One recent survey found that nearly 90 percent of Web users go on-line to get news and information.<sup>38</sup> As a result of this “new media,” the old media – such as broadcast television stations and traditional newspapers and magazines – have changed their business models. For example, America On-Line (a new media firm) recently proposed purchasing Time-Warner (an old media conglomerate). One of Time-Warner’s motivations for agreeing to the acquisition was the need to adapt to the new economy. Time-Warner understood that the Internet allows consumers the ability to get highly specialized information (e.g., *Agricultural and Resource Economics Review*) and more general media (e.g., the *New York Times* and the *Washington Post*). Furthermore, the World Wide Web also allows consumers to receive more information than is often available in the print version. For example, *Business Week* provides access to archives of its magazine and special reports not available in the print version. And unlike print versions, digitally stored material can be used repeatedly since there is little or no extra cost for the marginal viewer.

### Business-to-business e-commerce

While e-commerce is changing the business-to-consumer relationship, it is also profoundly changing the business-to-business relationship. A recent forecast by Forrester Research found that “more than 90% of firms described plans to buy and sell on the Internet.”

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<sup>37</sup> See <http://emedia1.mediainfo.com/emedia/> for list of newspapers available on-line, along with their locations.

<sup>38</sup> U.S. Department of Commerce, *The Emerging Digital Economy*, op. cit., page 24.

In February 2000, Forrester predicted that U.S. business-to-business e-commerce would reach \$2.7 trillion in 2004.<sup>39</sup> Estimates of business-to-business e-commerce growth, however, are highly uncertain, and other studies forecast even faster growth. For example, Boston Consulting Group has forecasted that business-to-business e-commerce would be \$4.8 trillion in 2004, while the Gartner Group has predicted growth to \$7.3 trillion and Bank of America has predicted it would reach \$13 trillion in that year.<sup>40</sup>

This growth in business-to-business e-commerce will increase the efficiency of American businesses. As the Second Annual Report of the President's Electronic Commerce Working Group report stated, "electronic commerce means reduced inventory loads, lower cycle times, more efficient and effective customer service, lower sales and marketing costs, and new sales opportunities." In addition, one recent study found that U.S. companies using Internet technologies to improve core business processes will save over \$600 billion on an annual basis by 2002.<sup>41</sup> And American Express claims that its purchasing card, when combined with an on-line purchasing system, can streamline processes and create savings of up to 95 percent.<sup>42</sup>

Three examples of how business-to-business e-commerce is fundamentally changing the business practices include:

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<sup>39</sup> Forrester Research, Inc., "eMarketplaces Will Lead US Business eCommerce To \$2.7 Trillion In 2004, According to Forrester," February 7, 2000, available at <http://www.forrester.com>.

<sup>40</sup> Boston Consulting Group, available at [http://www.bcg.com/media\\_center/media\\_press\\_release\\_subpage22.asp](http://www.bcg.com/media_center/media_press_release_subpage22.asp), September 11, 2000; Gartner Group, January 26, 2000; and *Fortune*, May 15, 2000.

<sup>41</sup> "Global Annual Cost Savings From Electronic Commerce Will Reach \$1.25 Trillion by 2002," August 5, 1999, available at <http://www.gigaweb.com>.

<sup>42</sup> Available at [http://home3.americanexpress.com/corporateservices/purchasing\\_center/leverage\\_ecommerce.html](http://home3.americanexpress.com/corporateservices/purchasing_center/leverage_ecommerce.html).

- The Automobile Industry. Last year, both Ford and GM announced plans to develop an automotive e-business supply chain to streamline purchasing transactions with more than 30,000 suppliers. Ford stated that this new electronic marketplace will “dramatically reduce” purchasing costs and make its production process more efficient through an integrated supply chain system.<sup>43</sup> Similarly, GM stated that its effort would create “the world’s largest ‘virtual marketplace’ for a wide array of products, raw materials, parts, and services.”<sup>44</sup> In February 2000, Ford, GM, and DaimlerChrysler announced that they were combining their efforts to form a single on-line business-to-business supplier exchange. As Jacques Nasser, the President and CEO of Ford, stated, this on-line business-to-business exchange “is another example of how the Internet is transforming every piece of our company and our industry.”<sup>45</sup> The on-line exchange will ultimately handle \$250 billion in direct purchases by these automobile manufacturers, which should reduce inventory costs and raise productivity. While it would initially bring together suppliers, partners, and dealers with manufacturers, Ford, GM, and DaimlerChrysler hope to expand the on-line exchange to encompass other industries.
- The Steel Industry. The steel industry is perhaps the paragon of the “old economy.” But, recently, the steel industry has begun to utilize on-line business-to-business exchanges, such as MetalSite and e-steel.com. Today, approximately \$500 million of steel is sold on MetalSite each year. However, only a small proportion of steel producers currently take

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<sup>43</sup> “Ford and Oracle To Create Multi-Billion-Dollar Business-to-Business Internet Venture,” Ford Motor Company Press Release, November 2, 1999, available at <http://www.ford.com>.

<sup>44</sup> “General Motors Joins Forces With Commerce One to Move into Business-to-Business E-Commerce with Innovative Internet Purchasing Enterprise,” General Motors Press Release, November 2, 1999, available at <http://www.gm.com>.

<sup>45</sup> “Ford, GM, and DaimlerChrysler Create World’s Largest Internet-Based Virtual Marketplace,” Ford Motor Company Press Release, February 25, 2000, available at <http://www.ford.com>.



advantage of the Internet. A recent Andersen Consulting survey found that while 91 percent of steel companies knew about the Internet-based business-to-business portals, less than one-quarter were using them.<sup>46</sup> As a result, there is significant room for growth. One estimate suggests that steel e-commerce transactions could reach \$44 billion in 2004 and \$200 billion by 2010. Morgan Stanley Dean Witter predicts that on-line transactions will involve 5 to 6 million tons of steel this year and double that in 2001.<sup>47</sup> As Richard Riederer, the President and Chief Executive Officer of Weirton Steel, said, "Metal Site is revolutionizing the way metal is bought and sold, making the process more efficient and effective. This is just the beginning of a truly independent global marketplace."<sup>48</sup>

- The Data Networking Industry. Cisco Systems dominates the data networking industry that provides the basic underpinnings of the Internet, including items such as switches, routers, and network hubs. Cisco controls nearly half of the \$36 billion data-networking industry.<sup>49</sup> With traffic on the Internet doubling every 100 days, Cisco has grown rapidly. In 1999, for example, Cisco's revenues increased from \$8.5 billion to \$12.2 billion, a 44-percent increase. Cisco uses the Internet to improve its own internal operations: 90 percent of its internal communications are done on Internet-based systems;<sup>50</sup> nearly 80 percent of its orders are completed on-line;<sup>51</sup> and the vast majority (80 percent) of its customer-service issues are handled over the Internet, which saves

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<sup>46</sup> Nikki Tait, "Steel sector slow to embrace e-commerce," *Financial Times*, March 27, 2000.

<sup>47</sup> Scott Robertson, "Analysts size up impact of e-commerce on steel," *American Metal Market*, March 30, 2000.

<sup>48</sup> Steve Boni, "Steel Producer Cashes in On E-commerce Web Site," *Newsbytes*, December 30, 1999.

<sup>49</sup> Jason Krause, "The Evangelist: John Chambers, the Most Important Infrastructure Builder," *The Industry Standard*, May 1, 2000, page 250.

<sup>50</sup> Ibid.

<sup>51</sup> *Towards Digital eQuality*, U.S. Government Working Group on Electronic Commerce, 2nd Annual Report (1999), available at <http://www.ecommerce.gov>.

Cisco an estimated \$125 million per year.<sup>52</sup> Cisco uses the Internet to recruit and screen job candidates, saving them millions of dollars in human resource costs. The company will also have the ability within a year to be the first company capable of “virtually” closing its books on any given day. Finally, Cisco Systems uses the Internet to streamline its production process; about half of its on-line orders are directed to the outside company that actually makes the product and ships it to the customer. As *Business Week* wrote: “For these orders, no Cisco employee ever touches a piece of paper until a check arrives in the mail to pay for the goods. Soon, with e-payment, even the check could be a thing of the past.”<sup>53</sup> Cisco estimates that using the Internet to conduct its business operations (from technical support to marketing materials) has saved \$363 million per year – or approximately 17.5 percent of total operating costs.<sup>54</sup>

- The Aircraft Maintenance Industry. In November 1996, Boeing launched its Part Analysis and Requirements Tracking (PARTS) business-to-business web site, which provides its customers with a one-stop shop for on-line ordering and maintenance information. The PARTS web site provides airlines and maintenance firms with a direct link to half a million different types of spare parts stored in seven distribution centers worldwide. With 11,000 Boeing and McDonnell Douglas jetliners in service around the world today, the volume of transactions on PARTS has grown 100 percent *each year*

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<sup>52</sup> U.S. Department of Commerce, *The Emerging Digital Economy*, Appendix 3, page 13, and *Towards Digital eQuality*, U.S. Government Working Group on Electronic Commerce, 2nd Annual Report (1999), both of which are available at <http://www.ecommerce.gov>.

<sup>53</sup> Andy Reinhardt, “The Man Who Hones Cisco’s Cutting Edge,” *Business Week*, September 13, 1999.

<sup>54</sup> U.S. Department of Commerce, *The Emerging Digital Economy*, Appendix 3, page 13, available at <http://www.ecommerce.gov>.

since 1996.<sup>55</sup> As a result, nearly 85 percent of all spare parts ordered from Boeing are now ordered electronically. The web site processes about 18,000 transactions on an average day (this includes orders as well as inquiries about shipping status, inventory levels, and pricing).<sup>56</sup> While the primary intent of PARTS was to improve customer service, it is also helping to reduce operating costs and administrative errors as more and more customers communicate using the Internet. For example, in 1997, Boeing processed 20 percent more shipments per month than it did in 1996 with the same number of data-entry workers.<sup>57</sup> Boeing has also used the Internet to provide airline mechanics with technical drawings and support. According to one estimate, providing technical drawings electronically will save a mid-sized airline approximately \$5 million per year.<sup>58</sup>

#### *Impact of information technology on government*

Just as information technology has transformed the economy and businesses, it is altering how government operates and how it provides services to the public. The Internet allows the government to disseminate a wealth of information about its goods and services directly to the public – from the most recent economics statistic release at the Bureau of the Census to the President’s speeches on the White House web page.

Six examples of how the government is working to use information technology include:

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<sup>55</sup> “Boeing Spare Parts Web Site: E-Commerce Success Story,” November 23, 1999. Available at: [http://www.boeing.com/news/releases/1999/news\\_releases\\_991123a.html](http://www.boeing.com/news/releases/1999/news_releases_991123a.html).

<sup>56</sup> Ibid.

<sup>57</sup> U.S. Department of Commerce, *The Emerging Digital Economy*, op. cit., Appendix 3, page 17.

<sup>58</sup> Ibid, page 20.

- The Internal Revenue Service. Taxpayers can download and retrieve tax publications and forms on the IRS web site. Between the beginning of this year and April 17 (tax filing day), the IRS web site recorded 968 million hits, which made it one of the most frequently visited sites on the World Wide Web.<sup>59</sup>
- National Weather Service. When Hurricane Floyd was approaching the East Coast of the United States, people visited the National Hurricane Center web site to track the weather on-line. In a two-day period, the web site received 27 million hits for information on Hurricane Floyd.<sup>60</sup>
- Student Financial Aid. The Department of Education has made it possible for students to apply for an estimated \$51.4 billion in federal grants, loans, and work-study opportunities on-line. During the 1998-1999 lending cycle, the Department of Education processed 672,728 loan applications electronically.<sup>61</sup> Electronic filing is not only faster, but also less error-prone. An estimated 12 to 14 percent of paper applications are returned for errors; by filing electronically, students can avoid delays because the software immediately identifies errors and allows for on-the-spot corrections.<sup>62</sup>

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<sup>59</sup> Internal Revenue Service, "Electronic Transactions Set Records in Successful IRS Tax Season," April 26, 2000.

<sup>60</sup> Remarks by Secretary of Commerce William M. Daley, Northern Virginia Technology Council, September 17, 1999, available at: <http://www.doc.gov>.

<sup>61</sup> *Towards Digital eQuality*, U.S. Government Working Group on Electronic Commerce, 2nd Annual Report (1999), available at <http://www.ecommerce.gov>.

<sup>62</sup> Department of Education, "Applying For Student Financial Aid Quick," February 10, 2000, available at: <http://www.ed.gov/PressReleases/02-2000/easy.html>.

- Patent and Trademark Office. The Patent and Trademark Office has put on-line two million patents dating back to 1976, and one million trademarks dating back to 1870. By the end of 2001, every patent ever issued by the United States will be available on-line, and by the following year, more than 14 million Japanese and European patents will be also.<sup>63</sup> The databases are searchable, so visitors can find the patent or trademark information they need on the Internet. In addition, the Patent and Trademark Office allows people to file for trademarks on-line and is piloting a system to allow patents to be filed electronically. Finally, like many private-sector entities, the Patent and Trademark Office is using the Web to recruit employees: so far, they have hired at least 700 patent examiners from on-line applications.<sup>64</sup>
- Environmental Information. The Environmental Protection Agency's (EPA) award-winning web site – EnviroMapper – allows consumers to access environmental information for their local neighborhood. The database includes information on drinking water, toxic and air releases, hazardous waste, water discharge permits, and Superfund sites. It also links to text reports, which provide more information.<sup>65</sup> The EPA spends approximately \$400 million per year to collect these data. Posting them on the Web saves EPA an estimated \$5 million per year in reduced labor and other costs.<sup>66</sup>
- The Department of Commerce. Last summer, then-Secretary Daley committed to moving the Department of Commerce from a “paper-based bureaucracy to a truly Digital

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<sup>63</sup> Remarks of Secretary of Commerce William M. Daley, E-GOV 99 Conference, July 1, 1999, available at: <http://www.doc.gov>.

<sup>64</sup> Ibid.

<sup>65</sup> Available at <http://www.epa.gov/enviro/html/em/index.html>.

<sup>66</sup> “Maps: Web Sites Provide Enviro Information For Public,” *Greenwire*, December 7, 1999.

Department” by the year 2002.<sup>67</sup> The plan entailed ensuring that personnel actions, procurement, and as much internal business as feasible would be conducted on a secure Intranet. These actions should help to increase productivity of government workers and save taxpayers money. (It should nonetheless be noted that the promised benefits of a “paperless” office have often been elusive. The World Bank’s effort to move toward a paperless system, for example, has created significant difficulties.)

In addition to the above examples, President Clinton has directed Federal agencies to take additional steps to utilize the Internet to provide government goods and services. (See Appendix B: Memorandum for Heads of Executive Departments and Agencies on Electronic Government.) Examples of the steps the President directed agencies to take include:

- Create One-Stop Access for Existing Government Information. The President directed the Administrator of the General Services Administration, in conjunction with other government entities, to create a portal for government information, based “not by agency, but by the type of service or information that people may be seeking; the data should be identified and organized in a way that makes it easier for the public to find the information it seeks.” (In June 2000, President Clinton announced that firstgov.gov, a free web site that will provide a single point of entry to all government on-line resources, would be created. In September 2000, the site became operational.)

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<sup>67</sup> Remarks of Secretary of Commerce William M. Daley, E-GOV 99 Conference, July 1, 1999, available at: <http://www.doc.gov>.

- Put Most-Used Government Forms On-Line. The President directed each government agency to put their most-used government forms on-line by December 2000.
- Agencies Should Use Electronic Commerce for Government Procurement. The President directed government agencies to use electronic commerce, where possible, for government procurement. The hope is that electronic procurement will make government ordering faster and cheaper, as it has for the private sector.
- Act as Leader to Protect On-Line Privacy of Citizens. The President directed agencies to post privacy policies visibly for customers to see. In addition, he directed that each government web site aimed at children should adopt and implement the required information policies to protect the children's information on-line.

## II. The Theory of the Government's Role in a Digital Age

To evaluate what activities the government should or should not be undertaking on-line, it is important to examine the role of government in the economy. The government plays an important but secondary role in the U.S. economy. It is directly involved in economic activities ranging from the conduct of monetary and fiscal policy to public education, bank deposit insurance, housing subsidies, Medicare, electricity generation, and regulatory oversight of a number of industries. The government owns roughly 25 percent of the land in the United States.<sup>68</sup> Federal government outlays on goods, services, and transfer payments currently amount to 18.7 percent of Gross Domestic Product, down from the recent peak of 23.5 percent in 1983 but still a significant share of the overall economy.<sup>69</sup> The government also provides the overall legal structure in which private-sector economic activity takes place.

The United States thus has a “mixed economy,” in which the government plays an important – but not the predominant – role. The purpose of this section is to explore the economic theory that could help to inform decisions about what the government should or should not do, or about the appropriate “mix” between government and the private sector.

Views regarding the role of government have fluctuated over time and across countries.<sup>70</sup> In the 16<sup>th</sup>, 17<sup>th</sup>, and 18<sup>th</sup> centuries, for example, many economics writers supported an active role for

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<sup>68</sup> U.S. Department of Commerce, *Statistical Abstract of the United States 1999*, Table 394, page 240.

<sup>69</sup> Office of Management and Budget, *Budget of the United States Government: Fiscal Year 2001* (Government Printing Office: Washington, 2000), Historical Tables, Table 1.2.

<sup>70</sup> For a discussion of how these views have evolved in different countries throughout the 20<sup>th</sup> century, see Daniel Yergin and Joseph Stanislaw, *The Commanding Heights: The Battle Between Government and the Marketplace That is Remaking the Modern World* (Simon & Schuster: New York, 1998).



government, arguing that the government should promote trade and exports. One of the best-known of these mercantilists was Thomas Mun of England, whose *England's Treasure by Foreign Trade* was published posthumously in 1664.<sup>71</sup> Another famous mercantilist was Jean Baptiste Colbert, the finance minister for King Louis XIV of France.

Partly in response to the prevalence of mercantilist ideas, Adam Smith published his seminal work, *The Wealth of Nations*, in 1776. Smith advocated a limited role for government, arguing that competition and the profit motive would best promote public well-being. In perhaps one of the book's most famous passages, Smith writes, "He intends only his own gain, and he is in this as in many other cases, led by an invisible hand to promote an end which was no part of his intention. Nor is it always the worse for society that it was no part of it. By pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it." Subsequent scholars elaborated on this laissez-faire doctrine, in which the private sector plays the predominant role in the economy.<sup>72</sup>

In the laissez-faire framework that traces its origins to Adam Smith, the government's role in the economy should be limited to correcting the imperfections that may arise out of private production. Since Smith's work, economists have elaborated upon the justifications for governmental action. In particular, there are eight potential rationales for government activity:<sup>73</sup>

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<sup>71</sup> John Kenneth Gailbraith, *Economics in Perspective* (Houghton Mifflin: Boston, 1987), pages 37-45.

<sup>72</sup> An active role for the government reemerged following the Great Depression and World War II. Maurice Allais, a French economist who later won the Nobel prize in economics, even suggested in 1947 that some firms in each industry should be publicly owned. See Maurice Allais, "Le Probleme de la Planification Economique dans une Economie Collectiviste," *Kyklos*, 1974, II, pages 48-71.

<sup>73</sup> For further discussion of these rationales for government activity, see Joseph E. Stiglitz, *Economics of the Public Sector* (W.W. Norton: New York, 1988), pages 71-83.

1. Failure of competition. In the absence of effective competition, the potential gains from private production may not be realized. Those potential gains include lower prices and higher productivity. As the President's Council of Economic Advisers recently argued, "Industries in which companies compete vigorously tend to be more productive. Conventional economic logic argues that companies operate efficiently and innovate whenever there is the chance of a profit payoff. In practice, however, companies can become complacent and keep doing things the old way even when new, more profitable methods are available. The pressures of competition encourage change and force companies to adopt the more productive methods."<sup>74</sup> In the absence of effective competition, these benefits are lost. The government therefore has a role to play in ensuring effective competition in private markets.
  
2. Public goods. Public goods have two critical properties: First, no additional costs are involved in providing the good to an additional person (formally, the good has zero marginal costs and is referred to as being "nonrivalrous"). Second, it is impossible to exclude individuals from benefiting from the good (formally, the good is "nonexcludable"). A classic example of a public good is national defense: Defending 270 million people does not necessarily cost more than defending 260 million people, and it is generally not possible to exclude anyone from the benefit of national defense. In general, private markets will not supply public goods – or not supply them in sufficient quantities – and therefore the government has a role to play in providing them.

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<sup>74</sup> Council of Economic Advisers, *Economic Report of the President 2000*, op. cit., page 30.

3. Externalities. An externality arises when the actions of one firm or individual affect the well-being of another, but in which the first entity does not compensate (or receive compensation from) the second entity. For example, a negative externality arises when one individual imposes additional costs on another individual, without having to pay the second individual for those additional costs. The classic example of a negative externality is pollution. An example of a positive externality is technology. In general, the government has a role to play in correcting negative externalities or promoting positive externalities. Without government involvement, private markets will typically under-produce goods with positive externalities and over-produce goods with negative externalities.<sup>75</sup>
4. Incomplete markets. A fourth possible justification for government activity is incomplete markets. For example, imperfections in capital and insurance markets – such as the absence of insurance coverage for certain types of risks – may warrant government involvement. A classic example of an imperfect capital market is the inability to borrow against higher future earnings, which justifies a government role in providing loans or loan guarantees for post-secondary education expenses. In addition, certain types of goods or services may require large-scale coordination, which may be possible but difficult to achieve without governmental assistance.
5. Information failures. Government activity may be justified by imperfect information in private markets. For example, the Truth-in-Lending legislation requires lenders to

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<sup>75</sup> The Coase theorem shows that under very restrictive conditions, the externality can be corrected by voluntary private actions even if the role of government is limited to enforcing property rights.

provide clear information about the true rate of interest on loans, and the Wheeler-Lea Act of 1938 made “deceptive” trade practices illegal. As discussed in greater detail below, information is in some ways a public good – and therefore this rationale for government is similar to the second rationale.

6. Macroeconomic fluctuations. The government has a role to play in correcting macroeconomic imbalances, such as those that lead to periodic problems with high unemployment, inflation, or recession.<sup>76</sup>
7. Redistribution. Even if private markets produce goods and services efficiently, society may not like the distribution of income that results. The government may therefore have a role in redistributing income – for example, through a progressive tax system – to produce a more equal distribution of income.
8. Merit goods. Finally, there may be cases in which individuals would make “bad” decisions if left to their own devices, and in which government paternalism is therefore warranted. For example, the government compels individuals to attend school or wear seat belts largely because it is concerned that people will not do “what’s best” in the absence of such mandates. The government may sometimes be justified in compelling individuals to consume “merit goods” (such as elementary education).

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<sup>76</sup> Some economists view the macroeconomic justification for government action as a result of interactions among the other market failures listed.

It is important to emphasize that these factors offer only the *potential* for social gain from governmental activity. They do not automatically justify a governmental role, nor do they define precisely how the government should intervene. In particular, in addition to the potential shortcomings in private markets delineated above, the government itself may suffer from so-called governmental failure – basically, inefficiency in its activities. Only if the government can succeed in effectively correcting a shortcoming in private markets should it undertake the activity.

Viewing governments and government agencies as economic agents, in other words, highlights that they suffer from many of the failures, especially related to incentives that could also affect the private sector. Inefficiencies in the public sector could arise from many sources, including:<sup>77</sup>

1. Lack of bankruptcy threat. Government enterprises usually do not face the same threat from bankruptcy as private-sector firms. In effect, government enterprises often have a “soft budget constraint,” in that they do not face the same limits on their ability to run operating deficits as private-sector firms do.
2. Weak incentives for workers. Public-sector employees are often difficult to dismiss for poor performance; the lack of a credible threat to their employment may attenuate the incentives for strong performance.

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<sup>77</sup> For further discussion of these potential explanations of public-sector inefficiencies, see Joseph E. Stiglitz, *Economics of the Public Sector*, op. cit., pages 198-212.

3. Skewed incentives for managers. Public-sector managers may maximize the size of their agency, rather than social benefits.<sup>78</sup>
4. Risk aversion. Public-sector agencies often do not bear the costs that they impose on others, and the lack of competition insulates them from the discipline of market forces. Bureaucrats may in particular act in a more risk-averse manner than is desirable, because they bear the full costs of failure but do not reap the full rewards of success.
5. Dynamic inconsistency. The government can serve as the enforcer of private contracts. But who is the enforcer of public contracts? The lack of higher enforcement authority may mean that the government is unable to make credible commitments over extended periods of time.

These government failures may play an important role in deciding *how* the government should intervene in private markets, if such government intervention is warranted. The next sub-section emphasizes the different ways in which government action is possible.

#### *Public provision versus public financing*

Government involvement in the economy need not take the form of governmental production or provision of goods and services. For example, economic theory suggests that private-sector firms will not produce (or not produce sufficient amounts of) public goods. Therefore, some form of government intervention is warranted. But the government does not need to produce or

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<sup>78</sup> W.A. Niskanen, *Bureaucracy and Representative Government* (Adline: Chicago, 1971).

provide the public good itself. Instead, it could *finance* the production of the good, but leave the actual production to a private-sector entity. Indeed, Andrei Shleifer of Harvard University argues that “when the opportunities for government contracting are exploited, the benefits of outright state ownership become elusive, even when social goals are taken into account.”<sup>79</sup> For example, national defense is typically classified as a public good. But in 1997, the Defense Department spent roughly \$107 billion in contract awards to businesses in the United States, including roughly \$20 billion for services on military bases and other facilities.<sup>80</sup>

In addition to contracting with private firms, the government can use its taxation and regulatory powers to align private and public interests should such intervention be necessary. For example, a negative externality (such as pollution) associated with the production of some good does not require government provision of the underlying good to address it. Instead, the government can impose a tax on the pollution created during the production process. The tax then aligns private incentives and social objectives.

To be sure, some goods and services must be produced or provided directly by the government, rather than being contracted out to private firms. For example, we can contract to buy military uniforms, but not to wage war.<sup>81</sup> The key point is that government intervention need not take the form of government production. Our focus in this report is primarily on such direct government provision, but it is important to remember that the government’s role is not – and should not be –

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<sup>79</sup> Andrei Shleifer, “State versus Private Ownership,” *Journal of Economic Perspectives*, Volume 12, Number 4, Fall 1998, page 135.

<sup>80</sup> U.S. Department of Commerce, *Statistical Abstract of the United States 1999*, Table 579, page 370. The \$107 billion represented roughly 40 percent of total Federal outlays for national defense in 1997 (\$270.5 billion).

<sup>81</sup> The hiring of Hessian soldiers during the Revolutionary War, however, suggests that even waging war could be contracted to outsiders, although the scope for such contracting has always been limited and may be even more limited today.

limited to such direct action. In the principles section below, we discuss some of the factors that should influence the choice of both whether and how the government should intervene in private markets.

### *The role of government in a “bricks and mortar” economy*

To a significant degree, a “bricks and mortar” economy is characterized by the conditions required for the government to play a secondary, supporting role. In other words, public goods account for a relatively small share of the overall basket of goods and services produced and demanded in such an economy, and information problems – while significant and typically underestimated – are often not so substantial as to warrant a predominant role for the government. While government intervention can improve economic performance, the scope for such improvements is thus somewhat limited, especially once government failure is taken into account.

In bricks and mortar activities, empirical evidence generally supported this rough theoretical preference for private-sector production – as long as markets were competitive. For example, the World Bank examined studies on bricks-and-mortar markets such as airlines and trucking, and concluded that “on balance...theory and the available microeconomic evidence suggests that, in competitive or potentially competitive markets, private firms are more efficient than state-owned firms.”<sup>82</sup> (The World Bank study, however, often compared government monopolies with competitive private markets, and failed to distinguish clearly the importance of private ownership versus competition.) John Vickers and George Yarrow conclude that “privately

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<sup>82</sup> The World Bank, *Bureaucrats in Business: The Economics and Politics of Government Ownership* (Oxford University Press: Oxford, 1995), page 40.



owned firms tend, on average, to be the more internally efficient when competition in product markets is effective...However, when market power is significant, and particularly when company behavior is subject to detailed regulation, there is little empirical justification for a general presumption of either type of ownership, and case-by-case evaluation of the various tradeoffs is therefore in order.”<sup>83</sup> The evidence thus generally suggests that if markets are competitive, private-sector firms are more internally efficient than public-sector firms.

### *The role of government in a digital economy*

As the economy shifts more toward information-based production, however, the prevalence of public-good-type and informational concerns loom larger.

Public goods were defined above as having two critical characteristics: zero marginal cost and non-excludability. In other words, a public good exists if providing the good to another person involves no additional cost (zero marginal cost), and it is impossible to exclude that person from enjoying the benefits of the good (non-excludability). In practice, however, goods are likely to have one property or the other to varying degrees – very few goods are pure public goods, in the sense that they literally meet both conditions for being a public good. For example, a lighthouse is often used as an example of a pure public good: Shining a light that illuminates the way for one ship does not generally cost more than allowing that same light to illuminate the way for two ships. And it is difficult to prevent ships from benefiting from the light. But it is at least

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<sup>83</sup> John Vickers and George Yarrow, *Privatization: An Economic Analysis* (MIT Press: Cambridge, MA, 1988), page 40.

theoretically possible for the lighthouse owner to shut off the light if there were no fee-paying ships in the vicinity – so that excludability may be possible to some degree.<sup>84</sup>

Information is, in many ways, a public good.<sup>85</sup> As Thomas Jefferson realized almost two hundred years ago: “If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea, which an individual may exclusively possess as long as he keeps it to himself; but the moment it is divulged, it forces itself into the possession of everyone, and the receiver cannot dispossess himself of it. Its peculiar characters, too, is that no one possesses the less, because every other possesses the whole of it.”<sup>86</sup> As Professor Danny Quah of the London School of Economics trenchantly argues, “When economic value – produced and consumed – is embedded in bits rather than atoms, Jefferson’s comments can be addressed not just to inventors and research scientists but to every economic agent.”<sup>87</sup>

The movement toward an information-based economy thus implies an expansion in public goods, which may be inconsistent with a laissez-faire approach to economic activity. Indeed, as Joseph Stiglitz and others have argued, the public good nature of information suggests that

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<sup>84</sup> Indeed, there were privately provided lighthouses in 19<sup>th</sup> century England. Ronald Coase, “The Lighthouse in Economics,” *Journal of Law and Economics*, 1974, pages 357-76. But Professor Bradford DeLong of the University of California at Berkeley notes that these “private” lighthouses had the power to tax ships that entered harbors regardless of whether the ships wished to make use of the lighthouses’ services. Coase’s private lighthouses thus were not truly “private” in the sense of a simple market exchange without coercion. Personal communication from Prof. Bradford DeLong, June 13, 2000.

<sup>85</sup> Information is also almost always an “experience good,” in that consumers must experience it to know its value. Carl Shapiro and Hal Varian of the University of California at Berkeley emphasize that individuals do not know the value of a newspaper, for example, until they have read it. As a result, media producers have invested heavily in branding and reputation. See Carl Shapiro and Hal Varian, *Information Rules: A Strategic Guide to the Network Economy* (Harvard Business School Press: Boston, 1999), pages 5-6.

<sup>86</sup> Thomas Jefferson, Letter to I. McPherson, August 13, 1813.

<sup>87</sup> Danny T. Quah, “The Invisible Hand and the Weightless Economy,” Centre for Economic Performance Occasional Paper No. 12, London School of Economics, April 1996, page 6.

individuals will have little incentive to invest in obtaining information (since they earn little return from doing so). Yet if no one invests in obtaining the information, information imperfections arise and private markets are not necessarily efficient.

Professor Bradford DeLong of the University of California at Berkeley and Professor Michael Froomkin of the University of Miami have similarly argued that the shift toward a digital economy may attenuate the presumption that private-sector activity is necessarily more efficient than public-sector activity. They note the “assumptions which underlie the microeconomics of the invisible hand fray when transported into tomorrow’s information economy. Commodities that take the form of single physical objects are rivalrous and are excludible: there is only one of it, and if it is locked up in the seller’s shop no one else can use it. The structure of the distribution network delivered marketplace transparency as a cheap byproduct of getting the goods to their purchasers. All of these assumptions did fail at the margin, but the match of the real to the ideal was reasonably good.”<sup>88</sup> But, they wonder, “What will happen in the future should problems of non-excludability, of non-rivalry, of non-transparency come to apply to a large range of the economy?”

As one example of the distortions that arise in information-driven markets, DeLong and Froomkin discuss public television. During the 1960s and 1970s, television was basically a public good – it was impossible to exclude receipt of the television signal, and providing that signal to five people cost no more than providing it to four people. Despite this public good nature of television, however, the broadcasting industry survived through advertising. That is, it

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<sup>88</sup> J. Bradford DeLong and A. Michael Froomkin, “Speculative Microeconomics for Tomorrow’s Economy,” unpublished draft, University of California at Berkeley, November 14, 1999.

did not charge for what it was truly producing – television programming – but rather charged for “advertising attention.” DeLong and Froomkin argue that the depth of audience attention to advertisements was not necessarily connected to the depth of audience attention to the programming. Thus, a bias was created toward “lowest-common-denominator-programming.”

In particular, DeLong and Froomkin note that a program with 30 million slightly interested viewers would likely be worth more in advertising terms than a program with 500,000 extremely interested viewers – even if the 500,000 extremely interested viewers were willing to pay more for their program (in total) than the 30 million slightly interested viewers were for theirs. They conclude that, “In the absence of excludability, industries today and tomorrow are likely to fall prey to analogous distortions. Producers’ revenue streams – wherever they come from – will be only tangentially related to the intensity of user demand. Thus the flow of money through the market will not serve its primary purpose of registering the utility to users of the commodity being produced. There is no reason to think *ex ante* that the commodities that generate the most attractive revenue streams paid by advertisers or others ancillary will be the commodities that ultimate consumers would wish to see produced.”<sup>89</sup>

Two other aspects of an information-based economy are worth emphasizing, because they can affect the efficiency of private-sector production without any government role. The first is so-called network externalities. A network externality arises when the value of using a specific type of product depends on how many other people are using it. For example, a telephone is more valuable if many other people own one than if no one else does. Similarly, fax machines are more valuable if most offices (and even homes) have them than if they are rare. Network

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<sup>89</sup> Ibid.

externalities thus exhibit positive feedback: The more people use the network, the more valuable the network is, and therefore the more people use it. As Treasury Secretary Lawrence Summers recently noted, “An information-based world is one in which more of the goods that are produced will have the character of pharmaceuticals or books or records, in that they involve very large fixed costs and much smaller marginal costs. And it is one in which network effects will be much more pervasive. Think about a lonely fax machine; it is a hunk of metal that is best used as a door stop. Now think about 100,000 fax machines; that is 10 billion possible connections.”<sup>90</sup>

In the presence of such network externalities and positive feedback, private markets are not necessarily efficient. The market may never develop, or it may evolve toward a specific technology that is not necessarily better than other technologies, but that survives solely because everyone else is using it. This phenomenon is sometimes referred to as the “QWERTY” effect, after the layout of letters on typewriters and now computer keyboards.<sup>91</sup> (The QWERTY story is itself an example of a network externality, however: The underlying story is not actually correct, but the story is nonetheless perpetuated through time.<sup>92</sup>) As Paul Krugman emphasizes, “In a QWERTY world, markets cannot be relied upon to get things right.”<sup>93</sup>

The second aspect of a digital economy that may undermine a laissez-faire approach is its “winner-take-all” potential, in which low (or zero) marginal costs combined with the possibility

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<sup>90</sup> Lawrence Summers, “The New Wealth of Nations,” Address to the Hambrecht & Quist Technology Conference, San Francisco, May 10, 2000.

<sup>91</sup> See Paul Krugman, *Peddling Prosperity: Economic Sense and Nonsense in the Age of Diminished Expectations* (W.W. Norton: New York, 1994), Chapter 9.

<sup>92</sup> See Stan Leibowitz and Stephen E. Margolis, “Policy and Path Dependence: From QWERTY to Windows 95,” *Regulation*, Volume 18, Number 3, Fall 1995.

<sup>93</sup> “Path Dependence,” *Investor's Business Daily*, November 22, 1995, page B1.

of exclusion imply that small differences in quality produce large differences in returns. In such situations, the price commanded by top performers is the difference in value between their product and the next best alternative. The reduction in communication costs associated with the digital economy may thus create such a “superstar” phenomenon in any given field.<sup>94</sup> As Professor DeLong has noted, “IT and the Internet amplify brain power in the same way that the technologies of the industrial revolution amplified muscle power.”<sup>95</sup> This phenomenon can generate both substantial income inequality, and also excessive investment in attempts to become the best in a specific field. The outcome can be inefficient from a social perspective.

The shift toward an economy in which information is central rather than peripheral may thus have fundamental implications for the appropriate role of government. In particular, the public good nature of production, along with the presence of network externalities and winner-take-all markets, may remove the automatic preference for private rather than public production. In addition, the high fixed costs and low marginal costs of producing information and the impact of network externalities are both associated with significant dangers of limited competition.

On the other hand, the reduction in communication costs associated with the Internet and other information technology advances may also attenuate information imperfections, which interfere with the efficient operation of private markets. Bruce Greenwald and Joseph Stiglitz have shown that given imperfect information, government interventions can at least theoretically improve the performance of the economy under a wide variety of assumptions. In other words, given the

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<sup>94</sup> The evidence for, and ramifications of, a winner-take-all society, in which a few top people in each field enjoy the vast majority of benefits, was examined in a popular book by economists Robert Frank, of Cornell's Johnson Graduate School of Management, and Philip Cook, of Duke University. See Robert H. Frank and Philip J. Cook, *The Winner-Take-All Society* (New York: Free Press, 1995).

<sup>95</sup> “Untangling e-economics,” *The Economist*, Survey on the New Economy, September 23, 2000, page 6.

absence of transparent information, the theoretical rationale for a laissez-faire approach is undermined.<sup>96</sup> If the information-based economy improves the quality and reduces the cost of obtaining information, that factor by itself may imply that private markets work *better* – not worse – than before. As the *Economist* stated, “by increasing access to information, IT helps to make markets work more efficiently... In other words, it moves the economy closer to the textbook model of perfect competition, which assumes abundant information, many buyers and sellers, zero transaction costs and no barriers to entry. IT makes these assumptions a bit less far-fetched.”<sup>97</sup> One recent study concluded that, “early research suggests that electronic markets are more efficient than conventional markets with respect to price levels, menu costs, and price elasticity...although several studies find significant price dispersion in Internet markets.”<sup>98</sup>

Furthermore, government failure may be even more pronounced in the context of rapidly moving information-laden markets than in traditional bricks-and-mortar markets. In other words, the government may face more difficulty in “keeping up” in a digital economy than in the bricks and mortar economy. The Central Intelligence Agency’s recent moves to create a venture capital fund in Silicon Valley highlight the difficulties the government faces in retaining competency in rapidly moving technological developments.<sup>99</sup>

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<sup>96</sup> See Bruce Greenwald and Joseph Stiglitz, “Externalities in economies with imperfect information and incomplete markets,” *Quarterly Journal of Economics*, 1986, 101:229-264. Also see Joseph E. Stiglitz, *Whither Socialism?* (MIT Press: Cambridge, 1994), Chapter 3.

<sup>97</sup> “Untangling e-economics,” *The Economist*, Survey on the New Economy, September 23, 2000, page 8.

<sup>98</sup> Michael D. Smith, Joseph Bailey, and Erik Brynjolfsson, “Understanding Digital Markets: Review and Assessment,” in Erik Brynjolfsson and Brian Kahin, eds., *Understanding the Digital Economy* (MIT Press: Cambridge, 1999). See also the discussion in OECD, “The Impact of Electronic Commerce on the Efficiency of the Economy,” Chapter 2, in *The Economic and Social Impacts of Electronic Commerce*, 1998, available at <http://www.oecd.org>.

<sup>99</sup> Karen Breslau, “Snooping Around the Valley,” *Business Week*, April 10, 2000.

A related perspective on potential government failure in the digital economy is that innovation is arguably more important in such a digital economy than in a bricks-and-mortar economy. And public-sector entities often face weak incentives to innovate. As Alfred Marshall emphasized, “A Government could print a good edition of Shakespeare’s works, but it could not get them written...Every new extension of Governmental work in branches of production which need ceaseless creation and initiative is to be regarded as *prima facie* anti-social, because it retards the growth of that knowledge and those ideas which are incomparably the most important form of collective wealth.”<sup>100</sup>

The nature of a digital economy thus may attenuate the automatic presumption that private production is more efficient than government production. But it may also involve a heightened emphasis on the type of innovation at which the government is relatively weak. The lack of clear theoretical guidance regarding the separation between government and business makes decision-making rules all the more important. We therefore turn in the next sections to current and potential future “guidelines” for deciding which activities should be governmental, and which should be provided by the private sector.

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<sup>100</sup> Alfred Marshall, “The Social Possibilities of Economic Chivalry,” *Economic Journal*, 1907, pages 7-29.



### III. Current Government Policy

Current government policy on commercial activities is governed by Circular Number A-76. The basic policy inherent in Circular A-76 was established in Bureau of the Budget Bulletins issued in 1955, 1957, and 1960; Circular A-76 itself was originally issued in 1966 and was most recently revised in 1999. The full text of Circular A-76 is included as Appendix A.

The Circular states explicitly, “In the process of governing, the Government should not compete with its citizens. The competitive enterprise system, characterized by individual freedom and initiative, is the primary source of national economic strength. In recognition of this principle, it has been and continues to be the general policy of the Government to rely on commercial sources to supply the products and services the Government needs.” It adds, “The Federal Government shall rely on commercially available sources to provide commercial products and services. In accordance with the provisions of this Circular and its Supplement, the Government shall not start or carry on any activity to provide a commercial product or service if the product or service can be procured more economically from a commercial source.” Commercial activities are defined to include the following, among others (see Appendix A for a full list – the following is a selective list for illustrative purposes only):<sup>101</sup>

- Automatic data processing services
- Financial and payroll services
- Statistical analyses
- Vehicle operation and maintenance
- Air, water, and land transportation of people and things
- Trucking and hauling

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<sup>101</sup> The Federal Activities Inventory Reform Act of 1998, which became law on Oct 19, 1998, mandates such a list to be developed and published every year.

The Circular also notes that certain functions are inherently governmental: “Certain functions are inherently Governmental in nature, being so intimately related to the public interest as to mandate performance only by Federal employees. These functions are not in competition with the commercial sector. Therefore, these functions shall be performed by Government employees.” Inherently governmental functions comprise activities in two categories: (1) the act of governing (examples include criminal investigations; direction of Federal employees; regulation of the use of space, oceans, navigable rivers and other natural resources; and regulation of industry and commerce), and (2) monetary transactions and entitlements (including tax collection and revenue disbursements, control of the Treasury accounts and money supply, and the administration of public trusts).<sup>102</sup>

The Circular further notes that government performance of commercial activity is authorized if there is no satisfactory commercial source available; if such performance is required for national defense; or if the government is operating or can operate the activity on an ongoing basis at an estimated lower cost than a qualified commercial source.

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<sup>102</sup> Even in these areas, however, the delineation between public and private is not as clear as it may initially appear. For example, while the government plays the central role in the court system, legal disagreements are increasingly being settled under alternative dispute resolution systems in which the private sector is central. Governments have also, in the past, used the private sector to raise taxes. Surely, the government could contract with private firms to collect tax bills.

**PART II:**

**PRINCIPLES FOR**

**GOVERNMENT ACTION**

## Principles for Government Provision of Goods and Services in a Digital Economy

OMB Circular A-76 and other existing norms for government provision of goods and services need to be updated for the digital age. As Vinton Cerf, one of the founders of the Internet, recently stated, “In some sense, the policy issues surrounding the Internet are more important than the technological ones, and they’re harder to solve.”<sup>103</sup> The purpose of this section is to provide a set of principles for deciding which on-line and information activities the government should engage in, and which it should avoid. The principles, while developed to reflect recent technological advances, are intended to be applicable in both the digital and “bricks and mortar” world. In addition, as technology advances in the future, revisions to these principles may ultimately become necessary. But the principles are intended to be consistent with both current and immediately foreseeable forms of information technologies. Government agencies have a natural tendency to perpetuate themselves and their missions, even if the justification for that mission is no longer present. The principles therefore need to be applied repeatedly over time, to existing as well as new on-line activities. Such an approach will help to ensure that an activity that is appropriate initially does not expand into one that is inappropriate.

The principles are divided into three categories:

- “Green Light” activities, which the government should undertake with little concern;
- “Yellow Light” activities, which the government should undertake with caution;
- “Red Light” activities, which the government should generally not undertake.

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<sup>103</sup> Quoted in Bob Davis and Gerald Seib, “Policing a Wildfire: Technology Will Test a Washington Culture Born in Industrial Age,” *Wall Street Journal*, May 1, 2000, page A1.

The principles include:

### **"Green Light" for On-Line and Informational Government Activity**

- Principle 1: Providing public data and information is a proper governmental role.
- Principle 2: Improving the efficiency with which governmental services are provided is a proper governmental role.
- Principle 3: The support of basic research is a proper governmental role.

### **"Yellow Light" for On-Line and Informational Government Activity**

- Principle 4: The government should exercise caution in adding specialized value to public data and information.
- Principle 5: The government should only provide private goods, even if private-sector firms are not providing them, under limited circumstances.
- Principle 6: The government should only provide a service on-line if private provision with regulation or appropriate taxation would not be more efficient.
- Principle 7: The government should ensure that mechanisms exist to protect privacy, security, and consumer protection on-line.
- Principle 8: The government should promote network externalities only with great deliberation and care.
- Principle 9: The government should be allowed to maintain proprietary information or exercise rights under patents and/or copyrights only under special conditions (including national security).

### **"Red Light" for On-Line and Informational Government Activity**

- Principle 10: The government should exercise substantial caution in entering markets in which private-sector firms are active.
- Principle 11: The government (including governmental corporations) should generally not aim to maximize net revenues or take actions that would reduce competition.
- Principle 12: The government should only be allowed to provide goods or services for which appropriate privacy and conflict-of-interest protections have been erected.

## Green Light Principles for Governmental Activity

### *Principle 1: Providing public data and information is a proper governmental role*

It has long been recognized that providing basic public information and data is a public function. Such public information and data includes basic statistical information, public records, public proceedings, and regulatory notices. As Thomas Jefferson is reported to have said, “Information is the currency of democracy.” More recently, Frances Cairncross, a senior editor at the *Economist* magazine, added, “Good information is essential for effective political involvement, and the communications revolution makes information more readily accessible than ever before...Access to publicly available information is no longer confined to an elite (the media, officials, big business).”<sup>104</sup>

Public information and data are fundamentally a public good. The government should therefore seek to make as much public information and data available on-line as possible. Interestingly, however, government policy has not always endorsed this objective. Indeed, the original Circular A-130 issued by the Office of Management and Budget (OMB) in 1985 called for a circumscribed role for the government in disseminating public information.<sup>105</sup> In 1989, the Federal Maritime Commission ran afoul of this policy when it proposed opening its electronic

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<sup>104</sup> Frances Cairncross, *The Death of Distance* (Harvard Business School Press: Boston, 1997), pages 259-260.

<sup>105</sup> In January 1989, OMB proposed further restrictions that would have limited Federal agencies to providing public information to private firms for dissemination. After substantial protests from affected parties, the proposal was withdrawn and an alternative proposal issued in June 1989. John Markoff, “Policy Shift on Access to U.S. Data,” *New York Times*, April 10, 1989. The June 1989 proposal, entitled the “Second Advance Notice of Further Policy Development on Dissemination of Information,” recognized the public asset nature of governmental information and thus represented a significant shift relative to the January 1989 proposal.

lists of shipping rates to the public. The proposal was strongly opposed by the private firms that gathered such data from official sources and then sold the information to interested parties.<sup>106</sup>

Circular A-130 was amended in 1993 to encourage agencies to maximize the information provided to the public.<sup>107</sup> (See Appendix C for the current version of Circular A-130.) The revised Circular also precluded setting user fees for information above the cost of dissemination. The Paperwork Reduction Act of 1995, passed unanimously by both houses of Congress and signed by President Clinton, adopted the A-130 principles. In addition, President Clinton recently issued a Memorandum to Executive Departments that promotes further dissemination of government information on-line (see Appendix B for the memorandum).<sup>108</sup>

***Principle 2: Improving the efficiency with which governmental services are provided is a proper governmental role***

Improving the efficiency with which inherently governmental services are provided is socially beneficial. Therefore, shifting activities previously undertaken off-line into on-line activities should be encouraged (e.g., license and passport applications). For example, the ServiceArizona web site created by the state government in Arizona allows people to replace lost driver's licenses, renew the registrations for their vehicles, and order personalized license plates on the web rather than having to appear in person at a state office.<sup>109</sup> Undertaking internal

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<sup>106</sup> John Markoff, "Giving Public U.S. Data: Private Purveyors Say No," *New York Times*, March 4, 1989.

<sup>107</sup> Bill McAllister, "White House Reverses Reagan Policy, Drops Profit Motive in Data," *The Washington Post*, July 1, 1993. The amendments had been prepared, but never signed, before the Clinton Administration took office.

<sup>108</sup> For further discussion of steps that the government should be taking to expand dissemination of data and information on-line, see Robert D. Atkinson and Jacob Ulevich, "Digital Government: The Next Step to Reengineering the Federal Government," Progressive Policy Institute, March 2000.

<sup>109</sup> <http://servicearizona.ihost.com>. See also Matthew Symonds, "Government and the Internet," *The Economist*, June 24, 2000, Survey, page 3.



governmental activities more efficiently through information technologies should also be encouraged (e.g., the development of a web-based system for managing governmental energy use).

Such improvements in efficiency should be undertaken despite any potential displacement or reduction in revenue of private firms. For example, the displacement of private-sector “facilitators,” who help to speed passport applications for a fee, should not impede the government from moving passport processing on-line. The granting of passports is an inherently governmental function, and it should be undertaken as efficiently as possible.

An example of an action that would be warranted under this principle is the publication of public filings with the Securities and Exchange Commission (SEC) through EDGAR, the Electronic Data Gathering, Analysis, and Retrieval system. The EDGAR system is an automated, on-line system of collecting and indexing submissions to the SEC required by law. According to the SEC, “Its primary purpose is to increase the efficiency and fairness of the securities market for the benefit of investors, corporations, and the economy by accelerating the receipt, acceptance, dissemination, and analysis of time-sensitive corporate information filed with the agency.”<sup>110</sup> Allowing on-line access to public documents that are required by statute to be filed with the SEC – and that previously were publicly available, but difficult to obtain – represents sound policy. Yet sponsoring EDGAR on the SEC web site was the source of substantial controversy, at least

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<sup>110</sup> See <http://www.sec.gov/edaux/wedgar.htm>.

partly if not largely because private-sector providers were charging fees for access to the same information.<sup>111</sup>

***Principle 3: The support of basic research is a proper governmental role***

Basic research is a public good. It is often difficult to exclude others from sharing in the gains from research advances, and providing the information regarding those advances to others entails no additional cost. Because it is difficult to exclude others from enjoying the benefits of innovation, despite intellectual property protections, some estimates suggest that the social gains from innovation exceed private returns by between 35 and 60 percent. Given this differential, private markets will under-provide basic research.<sup>112</sup> Government support, but not necessarily provision, of basic research is therefore appropriate.

The most prominent example of a government-sponsored research project that later produced large social benefits is the Internet itself. The precursor of the Internet was a Department of Defense project in 1969, which was created to link together government computers at different sites to share information and data. Interestingly, the Department of Defense contracted with a private firm to develop the military communications network that was the precursor of the Internet. A private technology firm, Bolt Baranek & Newman, won that contract. The initial development of the Internet thus involved public financing, but private production.<sup>113</sup>

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<sup>111</sup> Mary Ellen Bates, "What is Happening with the Edgar Database?" *The Information Advisor*, October 1995. Interestingly, EDGAR did not originally provide access to information until 24 hours after the data were available, which allowed commercial firms (such as Moody's and Standard & Poor's) to service the market for immediate information. EDGAR now provides immediate posting of information, according to personal communications with the authors from SEC staff.

<sup>112</sup> Council of Economic Advisers, *Economic Report of the President 1993*, page 190.

<sup>113</sup> Elinor Harris Solomon, *Virtual Money* (Oxford University Press: Oxford, 1997), page 4.

The government continued to sponsor innovations critical to the development of the Internet; the National Science Foundation, for example, funded the research that led to Mosaic, the first user-friendly web browser. The original Defense Department network began with four nodes; today, more than 300 million people worldwide have access to the Internet.

The line between basic research and applied research is often blurry, and the government should exercise increasing caution as the substance of the research moves more toward commercial applications.

### **Yellow Light Principles for Governmental Activity**

#### ***Principle 4: The government should exercise caution in adding specialized value to public data and information***

The more specialized the benefit of a government information service (i.e., that adds value to the underlying data or information), the more cautious the government should be in providing it. For example, the government should produce statistics on macroeconomic activity (e.g., Gross Domestic Product), but should be cautious in producing market studies of specific industries (e.g., analyses of the coal industry in West Virginia and the Powder Basin).

One example of this principle is the estimation of on-line retail sales. For years, private-sector firms have estimated the value of retail sales conducted on-line. Until early 2000, these firms were filling a gap in official statistics: There were no official statistics on on-line retail sales. Yet the extent of such on-line retail sales – and their projected growth – had important

implications, for issues ranging from market forecasts to sales tax revenue projections. The private-sector estimates were highly variable and often were based on different concepts. For example, estimates for on-line sales for the fourth quarter of 1999 ranged from \$4 billion to \$15 billion.<sup>114</sup> In March 2000, however, the Bureau of the Census issued its own estimates of such sales; its estimate was \$5.3 billion for the fourth quarter of 1999.

Fundamentally, providing estimates of aggregate economic statistics – such as on-line sales – is justified under Principle 1 (providing public data and information is a proper governmental role).<sup>115</sup> Government production of on-line retail sales estimates is thus fully justified. This example, however, also raises more complicated questions: For example, should the government attempt to forecast growth in on-line sales? Should it produce forecasts of on-line activity in very detailed sectors – such as estimating the number of “hits” on web pages with music?

Government estimation of aggregate on-line sales seems unobjectionable. In addition, government *projections* of aggregate on-line sales serve a legitimate public purpose (especially given the ongoing debate over the tax treatment of such sales). Just as the government produces forecasts of GDP growth and inflation, it could produce forecasts (which would admittedly be highly uncertain) of on-line sales. The government’s role need not be exclusive; despite official GDP forecasts from both the Administration and the Congressional Budget Office, a large number of private forecasters issue their own projections.

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<sup>114</sup> Maria Halkias, “Holiday e-sales fail to match hoopla,” *The Dallas Morning News*, March 3, 2000.

<sup>115</sup> The entry of private-sector firms in this case reflects the government’s sluggishness in estimating on-line activity; such sluggishness, however, does not provide a justification for further delay. Indeed, the government should pursue an aggressive policy of updating national statistics for new developments in the economy.

But at what point does the government go beyond providing a public good such as basic information and data? For example, providing detailed projections of on-line sales in specific markets (e.g., forecasts of on-line book sales) would seem to go too far. Such projections fundamentally represent market research, which does not serve a direct public purpose and can be (and is) provided by the private sector. The government should exercise increasing caution as it adds more and more value to raw data or information, or as it provides a more and more specialized service.

Similarly, the government should provide search engines and “ferret” tools to assemble data, but more specialized tasks – such as “cleaning” databases or linking official information to related academic articles – should generally be left to non-governmental entities (including academic institutions, non-profit organizations, and private-sector firms). Such case- or individual-specific tasks have less of a public good nature than the underlying data.

The National Weather Service (NWS) seems to strike this balance well. The NWS is the single, “official” voice in times of weather emergencies.<sup>116</sup> But more specialized private-sector forecasts also exist; indeed, private-sector weather forecasting is a \$430 million annual industry, which includes a 24-hour cable channel and 400 private enterprises.<sup>117</sup>

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<sup>116</sup> “Policy and Guidelines Governing National Weather Service and Private Sector Roles,” *NWS Operations Manual Chapter A-06*, Jul 30, 1993, <http://www.nws.noaa.gov/im/a061.htm>.

<sup>117</sup> *Private Sector Survey*, September 1999.

NWS has provided at-cost access to the public of *any* information it produces, which promotes private-sector use of that basic information.<sup>118</sup> According to the mission statement from the NWS Fiscal Year 2000 Annual Operating Plan, “NWS data and products form a national information database and infrastructure which can be used by other governmental agencies, the private sector, the public and the global community.”<sup>119</sup> Importantly, the NWS operations manual also designates certain areas (e.g., public safety, international issues) as permissible areas for NWS activities, and other areas as the property of private weather forecasters. The manual states explicitly: “The NWS will not compete with the private sector when a service is currently provided or can be provided by commercial enterprises, unless otherwise directed by applicable law.” For example, specialized weather forecasts and analysis for industrial clients are reserved for private firms, with cooperative transmission efforts in the case of weather emergencies.<sup>120</sup> Thus, NWS’ approach seems to balance the public sector’s role in providing basic information with an appropriate concern about displacing specialized, value-added private-sector services.

One indication of a specialized service is a high marginal cost. The higher the marginal cost of providing the service or information to a specific user, the more specialized the benefit of the service would appear to be. For example, the Department of Commerce’s Tourism Industries office produces customized reports on overseas travel patterns, costing between “\$175 and

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<sup>118</sup> The Transfer of National Weather Service (NWS), Agricultural Weather Services, and NWS Non-Federal Non-Wildfire Weather Services to the Private Meteorological Sector: A Report to Congress Executive Summary, April 30, 1996, available at <http://www.nws.noaa.gov/im/transcon.htm>.

<sup>119</sup> *NWS FY 2000 Annual Operating Plan*, March 8, 2000, <http://www.nws.noaa.gov/sp/aop2000.htm>

<sup>120</sup> Some industry representatives, however, are not satisfied with the NWS policy position. The Commercial Weather Services Association (CWSA) is lobbying Congress to pass the National Weather Service and Related Agencies Authorization Act of 1999 (H.R. 1335), to amend the 1890 Organic Act and transform NWS policy into law. CWSA claims this formalization of the policy is necessary because NWS has sometimes violated its own written policies. Perceived violations include continued provision of certain specialized services and data-for-research swaps with academic and research institutions that are not available to commercial weather forecasters, who must pay a fee capped at the marginal cost of dissemination.

\$76,000.”<sup>121</sup> Its report on the profile of overseas travelers to 12 U.S. States costs \$1,100.<sup>122</sup> These types of specific market analyses do not seem appropriate for a governmental body.

In general, therefore, the presence of a large governmental user fee for user-specific activity should raise questions about whether the activity should instead be undertaken by the private sector. (It is worth emphasizing that if the government *does* undertake activities with substantial marginal costs, user fees should be imposed. But the government should generally not be undertaking such tasks.)

***Principle 5: The government should only provide private goods, even if private-sector firms are not providing them, under limited circumstances***

The government may occasionally be able to “jump start” new markets or provide universal access to a private good that is deemed important enough that all citizens should have access to it.

The government’s decision to provide electricity in markets that were not adequately served by the private sector is an example of this principle. One of the original motivations for Federal production of electricity was to ensure that every household had access to it. At the beginning of the 20<sup>th</sup> century, less than 10 percent of all households had access to electricity. By the 1950s, nearly every household had electricity.<sup>123</sup> This example, however, also illustrates a danger:

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<sup>121</sup> Available at <http://tinet.ita.doc.gov/research/programs/ifs/index.html>.

<sup>122</sup> Available at <http://tinet.ita.doc.gov/cat/b-1998-639-001.html>.

<sup>123</sup> Council of Economic Advisers, *Economic Report of the President 2000* (Government Printing Office: Washington, DC, 2000), page 100. It is also worth noting that, at least prior to a national electricity grid, electricity (especially hydro-electricity) likely represented a local monopoly requiring significant regulation – and therefore it is not clear that private production was more desirable than public production.

temporary government activities can often become permanent. Indeed, Federal agencies – including the Tennessee Valley Authority and the five Power Marketing Administrations – still account for roughly eight percent of the Nation’s electricity production.<sup>124</sup> According to the Congressional Budget Office, “Compared with other major industries, the Federal presence in what is primarily a private and local function is in many ways an anomaly, having changed little since the New Deal era of the 1930s.”<sup>125</sup>

The “yellow light” for providing private goods suggests that the government should be cautious in entering such markets. It also suggests that, when the government decides to enter a private market, it should intervene modestly, and – whenever possible – work in conjunction with private-sector actors. Cooperative ventures with private-sector entities are a means of spurring the new activities and ensure at least a minimal level of private-sector interest, without which the long-run prospects for private-sector provision would appear to be dim.

***Principle 6: The government should only provide a service on-line if private provision with regulation or appropriate taxation would not be more efficient***

Even if a public good or other market imperfection is present, the government should not provide the good directly if private provision coupled with appropriate regulation (including contracting with a private provider) or taxation would be more effective. In many situations, the government may be able to achieve its social objectives more efficiently by harnessing private firms rather than by providing the good or service directly. Indeed, given the weaker incentives often faced by government employees to innovate and reduce costs, the principal motivation for direct

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<sup>124</sup> Congressional Budget Office, *Should the Federal Government Sell Electricity?* November 1997.

<sup>125</sup> Ibid.



government provision involves imperfect information and uncertainty – in particular, when the government has difficulty in anticipating all possible contingencies or in monitoring the performance of a private provider.

Telephone service is one example of a privately provided good that is subject to regulation. Universal access to a telephone is seen as an important policy objective – both because telephones are subject to network externalities, and because access to a telephone can be important for both emergency purposes and for basic cultural interactions. Yet the government did not (and does not) provide telephone service directly. Rather, it has allowed private firms to provide such service, and then regulated those private firms. Prior to 1983, for example, AT&T was limited to markets directly related to telephone services, and it was required to provide telephone service to anyone willing to pay the government-set fees. More recently, technological developments have changed the view that telephone service is a natural monopoly, in which substantial fixed costs imply that one provider is more efficient than many providers. Regulations have therefore evolved to allow a variety of private firms to serve the telecommunications market.

Providing Internet access to schools and libraries offers another example of this principle. As part of the Telecommunications Act of 1996, the Administration and Congress established the Universal Service Fund for Schools and Libraries, popularly known as the “e-rate.” The goal of the e-rate is to provide all public and private schools and libraries across America access to affordable telecommunications and advanced technologies. The e-rate provides discounts of 20 to 90 percent on the cost of telecommunications, Internet Access, and network wiring within

school and library buildings. The discounts are paid directly to the companies that provide schools and libraries with these technology services and the size of the discount is determined by whether the school, school district or library is located in an urban or rural area and the economic status of the students, normally determined by the number of students eligible for the school lunch program (the more students eligible, the deeper the discount). This year, the program will provide discounts of \$2.25 billion to help bring information technologies to every school and library in America.

The benefit of direct provision relative to private provision with regulation/taxation depends on many factors, including the internal efficiency of the government relative to the private sector in providing the good, principal-agent and other information problems in regulating a private-sector entity, and the potential for innovation and dynamic benefits from private provision. Andrei Shleifer of Harvard University, for example, argues that public provision is preferable only when innovation is relatively unimportant, competition is weak, information problems are substantial, or private sector concerns regarding reputation are inconsequential.<sup>126</sup>

***Principle 7: The government should ensure that mechanisms exist to protect privacy, security, and consumer protection on-line***

Continued growth in Internet commerce and usage requires appropriate protections for privacy, security, and consumer protection. As President Clinton emphasized during his radio address on November 27, 1999, “If we want Internet commerce to continue to grow, we all must work together to make sure that shopping on-line is just as safe as shopping in a mall.” Concerns

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<sup>126</sup> Andrei Shleifer, “State versus Private Ownership,” *Journal of Economic Perspectives*, Volume 12, Number 4, Fall 1998, pages 139-140.

about privacy on-line are highlighted by survey data showing that 92 percent of consumers are concerned, and 67 percent very concerned, about personal information being misused on-line.<sup>127</sup> According to one recent study, such privacy concerns may have reduced on-line retail sales by up to \$2.8 billion in 1999.<sup>128</sup> Other studies project much larger lost sales over time if privacy concerns are not addressed.<sup>129</sup>

Developing the appropriate standards for protecting privacy, security, and consumer protection is one of the most difficult tasks facing both policy-makers and Internet leaders. Before the government mandates standards in these areas, it should first encourage the private sector to develop its own voluntary standards that would be monitored by the government. As former Commerce Secretary Daley stated, “the business community must understand that its action – or lack of action – will determine how this issue is ultimately resolved.”<sup>130</sup> Should a voluntary approach ultimately prove ineffective, the government would have to stand ready to set the standards itself (after consultation with stakeholders).

The Clinton-Gore Administration’s efforts to promote on-line privacy provide an example of this principle. In 1997, the President directed the Secretary of Commerce and the Director of the Office of Management and Budget to “encourage private industry and privacy advocacy groups to develop and adopt within 12 months effective codes of conduct, industry developed rules, and

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<sup>127</sup> Surveys cited in Federal Trade Commission, *Privacy Online: Fair Information Practices in the Electronic Marketplace: A Report to Congress*, May 2000, available at <http://www.ftc.gov>, page 2.

<sup>128</sup> Forrester Research, *Best Practice Report*, cited in *New York Times* advertisement, March 23, 2000, page A12.

<sup>129</sup> Surveys cited in Federal Trade Commission, *Privacy Online: Fair Information Practices in the Electronic Marketplace: A Report to Congress*, May 2000, available at <http://www.ftc.gov>, page 2.

<sup>130</sup> Remarks by Secretary of Commerce William M. Daley, Press Conference On First E-Retail Sales, March 2, 2000.

technological solutions to protect privacy on the Internet....”<sup>131</sup> As a result, more than 50 of the largest companies doing business on the Internet and 15 business organizations that represent thousands of other companies formed the On-line Privacy Alliance (OPA). The private sector has also established enforcement mechanisms, which signal to consumers that certain web sites have privacy policies.<sup>132</sup> For example, more than 1,200 web sites carry a privacy seal from TRUSTe, the first on-line privacy seal program.<sup>133</sup> Over 450 web sites carry the BBBOn-line privacy seal, and 28 web sites have been licensed to carry the CPA WebTrust seal.<sup>134</sup> Some of the largest technology companies are taking additional steps to promote privacy: a number of market-leading companies have announced that they will not advertise on web sites that do not post privacy policies.<sup>135</sup>

As the private sector has taken steps to encourage on-line privacy, the percentage of web sites with privacy policies or information practice statements has increased substantially, from 14 percent in 1998 to 88 percent now.<sup>136</sup> Despite this progress in the number of sites with privacy policies, there are still significant concerns about both the quantity and quality of the privacy statements. For example, as *Business Week* noted, “few Web sites give consumers real choices

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<sup>131</sup> Presidential Directive on Electronic Commerce, Memorandum for the Heads of Executive Departments and Agencies, July 1, 1997, available at <http://www.ecommerce.gov>

<sup>132</sup> If a web site publicizes adherence a particular privacy standard, but the site does not actually conform to that standard, the posting is subject to traditional FTC and state enforcement actions. Indeed, the FTC filed suit against (and then settled with) ToySmart, which had a specific privacy standard while collecting customer’s personal information, but was trying to sell that information as part of its bankruptcy workout. In addition, individuals could bring their own legal actions for fraud, false statements, or underlying negligence.

<sup>133</sup> Federal Trade Commission, *Privacy Online: Fair Information Practices in the Electronic Marketplace*, op. cit., page 6.

<sup>134</sup> Ibid.

<sup>135</sup> As of December 1999, these companies were IBM, Microsoft, Disney, Intel, Compaq, Novell, Procter and Gamble, and American Express.

<sup>136</sup> Federal Trade Commission, *Privacy Online: Fair Information Practices in the Electronic Marketplace*, op. cit., pages 10-11.

over the data that get collected on-line.”<sup>137</sup> Furthermore, while a growing number of web sites are adopting the third-party privacy seals described above, most sites still lack them: Only about 8 percent of all sites, and 45 percent of the most frequently visited sites, bear such a privacy seal.<sup>138</sup> In addition, privacy policies are often buried in fine print. This has recently led the Federal Trade Commission to call for minimum Federal standards for privacy.<sup>139</sup> The debate over whether the Federal government should impose a minimum standard will continue. But ultimately, it is government’s responsibility to ensure that consumers are protected.

***Principle 8: The government should promote network externalities only with great deliberation and care***

Promoting network externalities – either through direct government provision of a specific type of good or service, or through a government technology standard with which private providers must conform – is fraught with potential dangers for policy-makers. In particular, policy-makers face two types of risks: They can fail to promote a network that the private-sector is incapable of promoting (and thereby forgo the benefits from the network that would have resulted), or they can promote an inefficient technology (and thereby lock into a network with lower benefits than an alternative network that might have developed in the absence of government action).

History highlights the relevance of both types of risks. The government and the private sector have each had both successes and failures in promulgating technology standards. For example, the government’s adoption of common standards for map-making through the Federal

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<sup>137</sup> “It’s Time for Rules in Wonderland,” *Business Week*, March 20, 2000.

<sup>138</sup> Federal Trade Commission, *Privacy Online: Fair Information Practices in the Electronic Marketplace*, op. cit., page ii.

<sup>139</sup> Federal Trade Commission, *Privacy Online: Fair Information Practices in the Electronic Marketplace*, op. cit., pages 33-38.

Geographic Data Committee seems to have been successful.<sup>140</sup> On the other hand, one of the most prominent examples of a flawed government-set standard involves color television. In the 1940s, RCA and CBS were competing to develop a color television system. RCA was working on an electronic approach, whereas CBS was developing a mechanical system. The CBS system progressed more quickly, and in 1950, the Federal Communications Commission (FCC) adopted the CBS system. Despite its superior performance during the FCC tests held in 1950, however, the CBS system had significant drawbacks: For example, it was incompatible with extant black-and-white broadcast signals without special equipment. In 1953, the FCC therefore switched and adopted the RCA technology, which had by then been sufficiently developed. The Europeans, by contrast, waited another decade to adopt color television standards – and wound up with a better system (PAL and SECAM). Arguably, the U.S. government’s intervention in the standard-setting process produced an inferior result.

The government is not alone, however, in settling on standards that appear inefficient: Private markets can also produce standards that are not efficient. Many analysts, for example, believe that Sony’s Betamax format for video cassette recorders was technically superior to JVC’s VHS format, which ultimately became the industry standard.<sup>141</sup>

Put simply, the presence of potential network externalities raises difficult policy choices, with no easy answers and no simple rules of thumb. As Carl Shapiro and Hal Varian of the University of California, Berkeley, argue, “...widespread availability is desirable for many kinds of networked

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<sup>140</sup> See Robert D. Atkinson and Jacob Ulevich, “Digital Government: The Next Step to Reengineering the Federal Government,” Progressive Policy Institute, March 2000, page 6.

<sup>141</sup> See Peter Passell, “Why the Best Doesn't Always Win”, *The New York Times Magazine*, May 5, 1996, page 60. It should be noted, however, that some analysts do not concur that VHS is technologically inferior.

goods. However, it is a large leap from there to say that such access should occur only through government provision or subsidies. After all, many goods with network externalities are provided by the private sector...”<sup>142</sup> Paul Krugman, a Princeton University economist, adds, “...while an acknowledgement of the importance of QWERTY refutes the near-religious faith of conservatives in free markets, it is not at all easy to decide which direction the government should pursue.”<sup>143</sup>

***Principle 9: The government should be allowed to maintain proprietary information or exercise rights under patents and/or copyrights only under special conditions (including national security)***

The fundamental purpose of patents and copyright protection is to provide a financial incentive to private innovators: Without such protection of their intellectual property, the incentives for investing in research and development would be substantially attenuated. It is therefore necessary to trade off the costs of the temporary monopoly granted to inventors and others against the benefits of the innovation and effort that the promise of such a temporary monopoly induces.

Public entities, however, are not governed by the same profit incentives that apply in the private sector. In particular, a patent or copyright should not generally be necessary in order to induce research or creative work within public-sector entities.<sup>144</sup> Since such an incentive effect is the

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<sup>142</sup> Carl Shapiro and Hal Varian, *Information Rules* (Harvard Business School Press: Boston, 1999), page 315.

<sup>143</sup> Paul Krugman, *Peddling Prosperity: Economic Sense and Nonsense in the Age of Diminished Expectations* (W.W. Norton and Company: New York, 1994), page 243.

<sup>144</sup> To some degree, the government is already limited in its ability to enjoy copyright protection. According to Title 17, Section 105 of the United States Code, “Copyright protection... is not available for any work of the United States Government, but the United States Government is not precluded from receiving and holding copyrights transferred to it by assignment, bequest, or otherwise.”

primary motivation for protecting intellectual property, the government should be allowed to exercise a patent or copyright only in very limited situations. (It may be necessary to create incentives for individual scientists employed within the government to engage in innovative activities. But those incentives need not necessarily take the form of patent rights. For example, under current law, a Federal scientist can earn up to \$150,000 per year from patents.<sup>145</sup> It is not clear that the exercise of such patent rights is the best way of rewarding government scientists for their work. Alternatives include special bonuses, awards, or other types of recognition.<sup>146</sup>)

It should be noted that the *exercise* of a patent or copyright is distinct from the *holding* of such a patent. Public entities should be entitled to hold the patent on products or ideas, if only to avoid allowing the patent to be reserved by someone else. But the public sector should generally not exercise such rights – in other words, it should not restrict the use of the technology or product, or charge for its use, despite holding the patent.

More broadly, a governmental entity should generally not be allowed to withhold information from the public solely because it believes such withholding increases its net revenue. As discussed below, maximizing net revenue is generally not an appropriate objective for public-sector entities.

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<sup>145</sup> The Stevenson-Wydler Act, as amended by the National Technology Transfer and Advancement Act of 1995, requires agencies to pay Federal inventors the first \$2,000 and thereafter at least 15 percent of the royalties received by the agency for the inventions made by the employee, up to a maximum individual royalty award of \$150,000 per year. Also see Guy Gugliotta, “Science Fields Offer Prestige, Few Perks,” *Washington Post*, Monday, May 8, 2000, page A21.

<sup>146</sup> It may be difficult to determine the relative contributions made by different employees. But that problem is not unique to the public sector: it may be difficult to create the proper *individual* incentives within the private sector also if such relative contributions are difficult to monitor.



## Red Light Principles for Governmental Activity

***Principle 10: The government should exercise substantial caution in entering markets in which private-sector firms are active***

The presence of significant private-sector activity generally raises a *prima facie* case against the existence of a public good. Therefore, the presence of such firms suggests that one of the primary motivations for direct government provision of a good or service – that it is a public good – is likely to be absent.

Furthermore, the government should generally *not* enter markets to provide more competition to existing firms. If the government is concerned about the lack of competition in a market, it should use anti-trust and other tools to address the underlying barriers to such competition. To the extent that the government is concerned that extant private-sector activity is either insufficient or excessive relative to some social optimum, it should generally encourage or discourage such activity through other incentives (e.g., taxes and subsidies) rather than direct provision itself.

It should be noted that this principle does not apply to private-sector activity that results purely from governmental inefficiencies. In particular, the presence of private-sector firms as “facilitators” for an inherently governmental function should not act as an impediment to improving the efficiency of that governmental function. This principle is therefore not inconsistent with Principle #2 (improving the efficiency with which governmental services are provided is a proper governmental role).

***Principle 11: The government (including governmental corporations) should generally not aim to maximize net revenues or take actions that would reduce competition***

In general, maximization of net revenue (or “profits”) is not an appropriate objective for public-sector entities. Commercial activities in which the government's goal is net revenue maximization should therefore raise concern, either because the activity should be undertaken in the private sector (if no governmental role is warranted) or because the public-sector entity is not appropriately fulfilling its mission (if a governmental role is warranted).<sup>147</sup>

A vivid example of the dangers associated with net revenue maximization by governmental agencies or corporations is offered by the U.S. Enrichment Corporation (USEC), a government corporation created in 1992 that was subsequently privatized in 1998.<sup>148</sup> USEC inherited the Department of Energy's role in enriching uranium for use in nuclear power reactors. As a government corporation (and subsequently as a private corporation), USEC's net revenue maximization was inconsistent with a crucial non-proliferation program of the U.S. government: the highly enriched uranium (HEU) deal with Russia, under which 500 metric tons of Russian weapons-grade uranium is blended into reactor fuel and sold to U.S. utilities. USEC serves as the U.S. government's executive agent with the Russians. But USEC's marginal cost of producing enrichment from domestic sources is significantly lower than the cost of the Russian material, so that the more it imports, the higher its costs. Net revenue maximization is therefore

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<sup>147</sup> Limited circumstances may exist in which profit maximization is the best objective for a public enterprise. See, for example, G. De Fraja and F. Delbono, “Alternative Strategies of a Public Enterprise in Oligopoly,” Paper presented at the 1<sup>st</sup> Congress of the European Economic Association, 1986. We suspect, however, that the necessary conditions for this result are relatively rare in practice.

<sup>148</sup> For a discussion of USEC and the problems inherent in its privatization, see Peter R. Orszag, “Privatization of the U.S. Enrichment Corporation: An Economic Analysis,” presented at the Brookings Institution, February 2000, available at <http://www.sbgo.com/papers.htm>.

inconsistent with national security objectives (since net revenue maximization would imply importing none of the Russian material, whereas national security would be best served by importing as much of the Russian material as possible).

Governmental agencies or corporations should also not undertake actions that reduce competition – such as imposing higher costs on existing rivals, erecting entry barriers, or circumventing restrictions on below-cost pricing. Interestingly, entities that seek to maximize revenue rather than profits may have a *stronger* incentive to engage in such anti-competitive behavior than profit-maximizing entities. Indeed, researchers David Sappington and J. Gregory Sidak have identified “a variety of plausible settings in which public enterprises have stronger incentives than profit-maximizing firms to pursue activities that disadvantage competitors. Quite often, the less concerned is the public enterprise with profit, the stronger are its incentives to undertake activities that disadvantage competitors.”<sup>149</sup> Intuitively, a concern over revenue maximization could more easily lead public-sector enterprises to engage in costly activities (e.g., pricing below marginal cost) that reduce profits but raise revenue.

A related issue is that predatory pricing and other anti-trust laws do not generally apply to governmental agencies. Sappington and Sidak therefore argue that “the optimal design of antitrust law as applied to public enterprises also merits extensive study.”<sup>150</sup> The application of predatory pricing laws to public entities could help to minimize the opportunities for such entities to behave in a socially counterproductive manner.

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<sup>149</sup> David E.M. Sappington and J. Gregory Sidak, “Incentives for Anticompetitive Behavior by Public Enterprises,” AEI-Brookings Joint Center for Regulatory Studies, Working Paper 99-11, November 1999, page 1. See also John R. Lott, “Predation by Public Enterprises,” *Journal of Public Economics*, 43 (1990), 237-251.

<sup>150</sup> David E.M. Sappington and J. Gregory Sidak, “Incentives for Anticompetitive Behavior by Public Enterprises,” AEI-Brookings Joint Center for Regulatory Studies, Working Paper 99-11, November 1999, page 24.

The difficulty is thus that neither profit maximization nor revenue maximization is generally an appropriate objective for public enterprises. Much more attention must be given to defining appropriate objectives for such enterprises; an objective of profit maximization or even revenue maximization should serve as a warning sign that further scrutiny is necessary.<sup>151</sup>

***Principle 12: The government should only be allowed to provide goods or services for which appropriate privacy and conflict-of-interest protections have been erected***

Data provided on-line to one government agency are often useful to another government agency. But the sharing of such information between government agencies – or for different purposes within an agency – may compromise an individual’s privacy. More broadly, individuals should have discretion over what type of information is provided to a government agency on-line, and then how that information is disseminated to others inside or outside the government. In the absence of such protections, the government should not be allowed to provide goods or services on-line.

For example, it would not be appropriate for the Bureau of the Census to share individual data with the Postal Service, in order to allow the Postal Service to better target its new eBillPay program. Similarly, it would not be appropriate for the Postal Service to share the information it

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<sup>151</sup> One argument sometimes proposed for profit-maximizing behavior by some governmental agencies is the cross-subsidization possibilities that the resultant profits can offer. But even if the activities that are being cross-subsidized are important policy objectives, it is not clear that the best source of revenue for them is profit-maximizing behavior. To be sure, it is possible in some situations that the distortions imposed by the profit-maximizing behavior are lower than the distortions that would be imposed by any other source of government revenue. But such situations would seem to be relatively rare, and therefore one arm of the government should generally not engage in profit-maximizing behavior merely to cross-subsidize another arm. To the extent that budgetary accounting rules encourage such cross-subsidization, modifications to the rules should be explored.

gathers as part of that program with the Internal Revenue Service, to ensure compliance with the tax code.

Recent media reports suggest that government privacy practices are sometimes deficient. For example, Scripps Howard News Service reported that the activities of individuals who visited anti-drug web sites operated by the White House were being tracked without their knowledge. In response, the Office of Management and Budget reportedly directed all government agencies to review their privacy standards and to use “cookie” programs only if there were a “compelling need.”<sup>152</sup>

The upshot is that in addition to ensuring appropriate privacy standards for the private sector (Principle #7), government agencies themselves must ensure that visitors to their web sites are offered appropriate privacy protections. As Jacob Lew, the director of the Office of Management and Budget, wrote in June 1999, “Looking ahead, as contemplated for instance by the Government Paperwork Elimination Act, people will conduct more and more business and other activities with the Government electronically. We cannot realize the full potential of the web until people are confident we protect their privacy when they visit our sites.”<sup>153</sup>

## **A Decision Tree for Policy-Makers**

The preceding 12 principles can be combined into a “decision tree” for policy-makers to evaluate proposed governmental actions. The tree below illustrates the steps involved in such a decision process.

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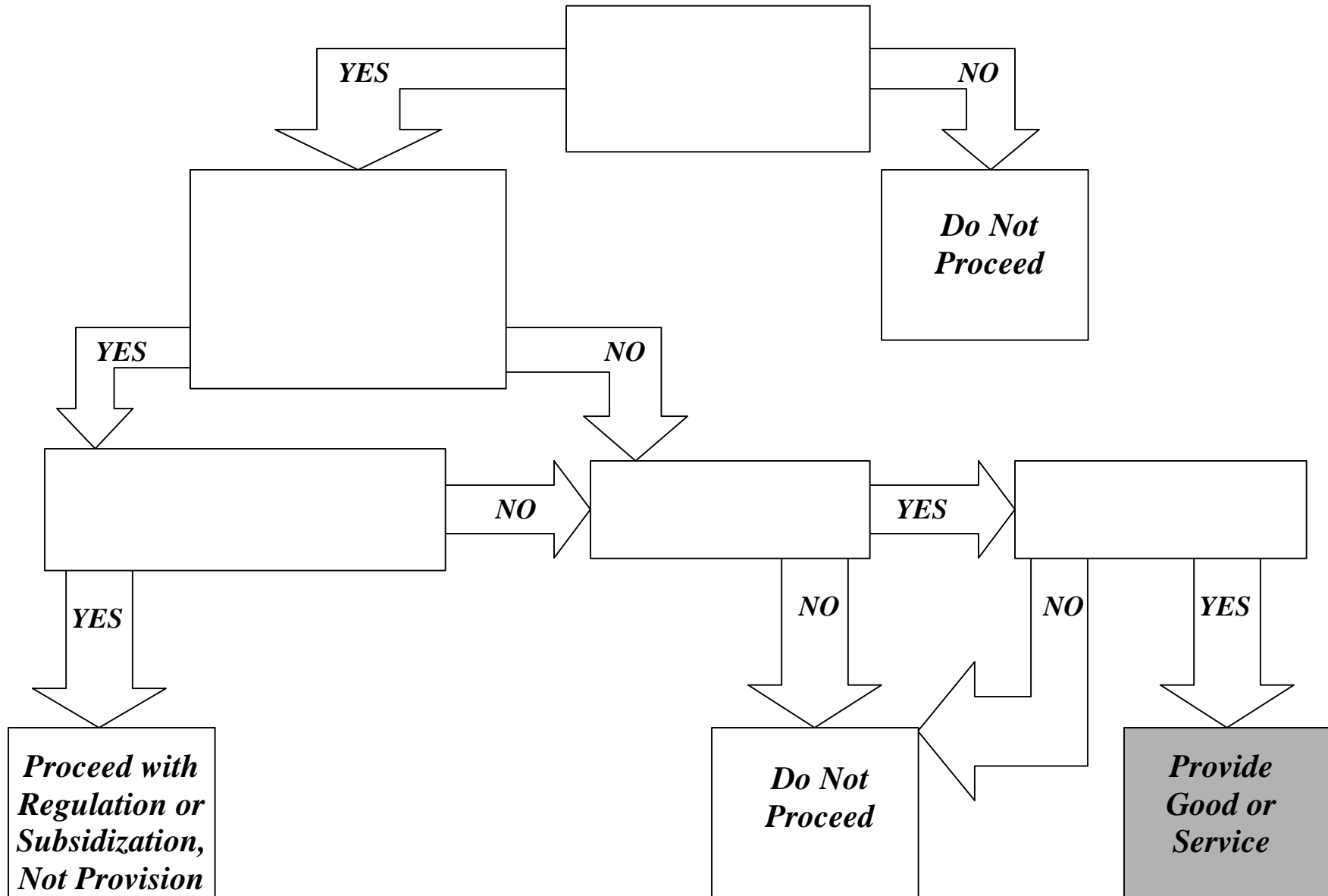
<sup>152</sup> Lance Gay, “Federal agencies criticized for ‘snooping’ on Web sites,” Seattle Post-Intelligencer, June 24, 2000.

<sup>153</sup> Jacob J. Lew, “Privacy Policies on Federal Web Sites,” Memorandum for the Heads of Executive Departments and Agencies, M-99-18, June 2, 1999.

In evaluating whether a good or service should be provided by the government, the first question policy-makers should ask is whether the good or service is a public good or externalities (or other market failures) are present. If the answer to that question is no, the government should not provide the good or service. If the answer is yes, policy-makers must proceed to the next question, which is whether the good or service can be provided more efficiently through appropriate regulation or subsidization, relative to direct public provisions. If the answer to that question is yes, the government should proceed with appropriate regulation or subsidization if private-sector entities are already active, and not attempt to enter the market as a direct or indirect service provider itself. If either public-sector provision would be more efficient or if no private-sector entities exist, policy-makers should proceed with direct provision only if privacy and pricing issues have been appropriately addressed.

In practice, implementing the decision tree is difficult. For example, determining whether a good or service can be provided more efficiently through appropriate regulation or a subsidy is a complicated empirical issue. Nonetheless, the decision tree should serve as a useful framework for government policy-makers to decide whether to directly provide a good or service.

# *Decision Tree for Policy-Makers*



# **PART III:**

# **CASE STUDIES**



### ***Case Study: The Department of Labor's On-Line Job Market Information***

The Department of Labor, in conjunction with state-operated Public Employment Service offices, operates America's Job Bank ([www.ajb.org](http://www.ajb.org)), the largest on-line employment database. The site includes nearly 1.5 million job listings and nearly 2.5 million registered job seekers. The Job Bank is funded through Unemployment Insurance tax revenues, and there is no charge for use to any employer or job seeker. Most of the postings are for full-time, private-sector jobs that cover all skill levels, industries and sectors.

In addition to America's Job Bank, a number of private-sector job boards exist. Indeed, a search for the term "job search" on eleven popular search engines returned over 100 job search sites, although the vast majority of them were returned only by a single search engine.<sup>154</sup> In addition, four of the search engines (About, Excite, LookSmart and Lycos) included their own job boards. Most of these private sites list all types of jobs, but some sites specialized in certain cities or states; others specialized in positions for executives, librarians, IT professionals, recent college graduates or elder care workers; and other sites focused on Federal government jobs. One site directly searches America's Job Bank, with an interface that may be easier for some people to use.<sup>155</sup>

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<sup>154</sup> The search engines used for this search were: About, Excite, Google, GoTo, Hotbot, LookSmart, Lycos, MSN, Netscape, NorthernLight and Snap. The search was conducted in April 2000.

<sup>155</sup> The site is <http://www.fullwebinfo.com/jobsearch.htm>.

### *America's Job Bank*

All U.S. employers are eligible to post job openings on America's Job Bank (AJB) after registering with their state employment office. The only exceptions are that employers may not require a significant financial investment or charge a fee to a job seeker, and the position advertised cannot be involved in a labor dispute. Once an employer is registered for the service, the employer can post and update job listings. By default, jobs are posted for 45 days. During that period, employers can close the listing if the position is filled in a shorter amount of time, extend the posting period, or temporarily withdraw the listing with the option to re-post it later. In addition, registered employers may search for job-seeker resumes by occupation, keyword, or resume number. An occupation search allows employers to choose one of 22 pre-defined occupation groups,<sup>156</sup> then allows the option to further narrow the search with subcategories of the groups. A keyword search allows the employer to choose certain words important to match for the job's title, objective or skill. Both of these types of searches can be further refined by the job seeker's available location, educational attainment and desired salary range, and the date the resume was posted. Resumes are also searchable by specific resume number.

Job seekers are free to search job listings in a similar manner. Seekers can search by occupation within the 22 pre-defined groups, or by occupation sub-category, or by keyword. Seekers with a military background can also search by Military Occupation Code. These searches can also be

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<sup>156</sup> The categories are the following: administrative support; cleaning and grounds maintenance; clerical, secretarial and office; community and social services; computer, IT and mathematical; construction and extractive; education and training; engineering and architectural; farming, fishing and forestry; food and lodging; health; installation, maintenance and repair; legal and compliance; management; media and arts; personal services; physical, life and social science; production and manufacturing; protective services; sales; sports and recreation; transportation and material moving.

limited by geographic area, education requirement, salary offered, and date of posting. If a job seeker chooses to register confidentially with his or her state agency, then more options are made available. Registered job seekers may save a customized job search profile, and can register for an automatic e-mail update when new matches to the profile are found. Registered seekers can also create and submit a resume to be made available to employers (for 60 days by default), and can generate on-line cover letters for posted jobs.

The America's Job Bank web page has a prominent link to the Career InfoNet – a service that also provides employment information and assistance. The information allows the user to search by skill level for occupations that are fastest growing and highest paying, or with the largest employment or the most job openings. Other options include searching for employers by name, and viewing state profiles with employment statistics and government, education, and culture resources. Another link takes the user to America's Career Kit, a site that offers advice on how to get a better job or invest in more skills, suggestions for resources for financial assistance for education and training, and more advice on job searching – including government offices to contact for help and instructions on how to write an eye-catching resume.<sup>157</sup>

### *Industry profile*

As noted above, there are a variety of private-sector job market sites. Two of the most prominent are Monster.com and Headhunter.net. Monster.com has an eye-catching interface and is organized to send users to the appropriate area depending on their needs. The site targets individuals throughout their career cycle (“Intern to CEO”), and offers advice and news

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<sup>157</sup> Much of the advice is in the form of links to other websites – many of which are at Monster.com.

specifically tailored to different career stages. For example, students are told how to utilize college alumni connections to land their first jobs, while executives are offered tips on how to negotiate stock option packages. Monster.com is owned by TMP Worldwide, a recruiting firm founded in 1967. In the spring of 2000, the site was among the top 100 most-visited websites with 10.1 million unique visits per month, 5 million job seeker members, 2.3 million available resumes, and 386,000 jobs posted.

Job seekers can search listings by location, keyword, or one or more of 42 job categories, and also have the option to browse the job listings. In addition, if the job seeker fills out an optional registration form, the seeker can create multiple resumes that are searchable by employers. The site also tailors career advice and information to the user. Seekers are never charged for use of the site. Employers can list individual jobs in a single job-search category for \$275 per 60-day posting. In addition, they can purchase access to Monster's searchable resume database.

Headhunter.net has only a fraction of the number of the job postings boasted by AJB – about 169,000 jobs and 360,000 resumes were available in February 2000. But the site claims to have the largest job database of positions fewer than 30 days old, and reports that 90,000-110,000 unique users visit the site every day. Headhunter.net boasts user-friendly design and a capability for job seekers and employers to search by geography, salary, travel requirements, profession, experience and key word. It has restrictions similar to those imposed by AJB: postings are prohibited for jobs that require a monetary investment by the job seeker, for Multi-Level Marketing positions, business opportunities, and jobs related to the adult entertainment industry.

Potential employers on the Headhunter site typically pay \$50 to \$125 to post a single job in a single city. When a job seeker performs a search that returns more than one job, the results are ordered by the price paid by the employers. Jobs can be posted regionally or nationwide at rates 5- and 14-times the base price, respectively. Employers also can search for resumes by any of the categories mentioned above if they join the service – at a price of \$1,500 for 3 months to \$3,600 for a year. Job seekers can search Headhunter’s job postings for free, and can apply for jobs electronically or the old-fashioned way. Seekers can also post their resumes for free, and are given the option to upgrade their sort position – similar to the employer option – for \$10 to \$30 per month depending on the priority level.

### *Evaluating America’s Job Bank*

The purpose of this case study is to examine whether America’s Job Bank is an appropriate activity for the Department of Labor to be sponsoring. Principles 2, 4, 10, and 12 seem particularly relevant for this case study.

America’s Job Bank could be justified under the second “green” light principle. According to Principle 2, improving the efficiency with which governmental services are provided is a proper governmental role. Although the Internet site was launched in the mid-1990s, the job-opening data themselves have been collected by states for more than 60 years, and states have shared their information to form a national database since 1979. From one perspective, therefore, America’s Job Bank is merely putting on-line information that had previously been publicly available, but more difficult to obtain.

A deeper question is whether the government *should* be collecting and disseminating job market information. Given the positive externalities from employment – including its impact on government revenues and expenditures – the government is justified in playing some role in collecting job market information.

While America's Job Bank thus seems justified under one of the green light principles, it is possible that it runs counter to one of the yellow light or red light principles. For example, Principle 4 states that the government should exercise caution in adding specialized value to public data and information. As it currently operates, however, America's Job Bank is fundamentally a source of information – not of substantial value added to that information.

Principle 10 states that the government should exercise substantial caution in entering markets in which private-sector firms are active. As discussed above, private-sector job market sites do exist, thus raising questions about whether America's Job Bank is an appropriate governmental activity. However, a crucial issue involves the definition of the "market." The private-sector sites seem skewed toward high-skill job seekers. For example, on Headhunter.net, the average salaries among jobs offered are \$50,000-100,000, and two-thirds of job seeker resumes have at least a 4-year college degree. In fact, the drop-down menu that allows job seekers to specify their degree status favors highly educated workers. It includes choices for none, college student, 2-year, 4-year, and graduate – but does not distinguish between high school diploma holders, high school dropouts, and seekers who are not currently students but have some college credit.

America's Job Bank, on the other hand, provides substantial coverage to less-skilled workers. For example, job seekers without a high school diploma find that they are eligible for over 425,000 full-time, at least six-months-a-year jobs in the nationwide job bank, compared to over 550,000 for high school graduates, and 650,000 for 4-year college degree holders. (The AJB does not limit against over-qualification. For example, if a job requires a high school education level, a college graduate's search will also turn up the position.) Since lower-skill workers are more likely to be unemployed than higher-skill workers, AJB provides a particularly valuable social service.<sup>158</sup>

The final concern involves Principle 12, which states that the government should only be allowed to provide goods or services for which appropriate privacy and conflict-of-interest protections have been erected. America's Job Bank seems to have been designed with privacy concerns in mind. For example, its web site emphasizes that users are "in charge of how much information is given and when it will be given. None of your personal information will be released unless you take or have taken some action to release it. None of your personal information will be sold to mailing lists." Job seekers must agree to these provisions before using the service. A similar approval and similar privacy provisions are required for employers who are posting job offerings.

In summary, America's Job Bank seems consistent with the principles for government action.

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<sup>158</sup> In March 2000, the unemployment rate for those with less than a high school diploma was 6.9 percent, compared to 3.4 percent for those with just a high school diploma and 1.6 percent for all college graduates.

## *Case Study: United States Postal Service eBillPay*

On April 5, 2000, the United States Postal Service (USPS) announced that it would offer electronic billing and payment services. The new service is called USPS eBillPay. This case study examines the USPS's new activity in light of the principles delineated above.

### *Background on electronic bill presentment and payment (EBPP)*

Electronic Bill Presentment and Payment (EBPP) involves the delivery of bills and the collection of payments via the World Wide Web or other digital means. In particular, EBPP comprises two services:

- First, EBPP services can consolidate all bills to a customer into a single website.
- Second, EBPP services then allow the customer to pay bills through direct debits from the customer's bank account. Customers can schedule specific dates for payment and request automatic monthly payments. For those billing vendors that do not accept electronic transfers, the EBPP service can draft checks on the customer's account and submit them.<sup>159</sup>

### *Industry Profile*

The EBPP market has two components: the user interface (i.e., the portal that customers use to pay their bills) and the financial payment infrastructure (i.e., the financial network by which

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<sup>159</sup> Only court-ordered payments and state and federal taxes cannot be paid via EBPP.



funds are transferred from the customer to the billing vendor). Both components are actively provided by the private sector.

EBPP offers the opportunity for substantial cost savings in the payment process. Check clearance requires sorting, bundling, shipping, and reconciling 180 million checks each business day. Americans write about 63 billion checks every year.<sup>160</sup> According to the National Automated Clearing House Association, the average cost of processing a paper check is 35 cents, whereas the cost of processing an electronic payment is only 7 cents.<sup>161</sup>

The EBPP market still has substantial growth potential, since only one percent of all bill payments in 1999 were made on-line.<sup>162</sup> Forrester Research predicts that 21 million Americans will use on-line bill payment services by 2004, accounting for 1.9 trillion annual electronic bills.<sup>163</sup>

An established market of banks, brokerages, and web portals offers EBPP user interfaces at their sites, as well as other personal financial services. For example, Wells Fargo, Yahoo!, Bank of America, Charles Schwab, and Paytrust.com all offer EBPP. Table 1 shows consumer preferences for different types of EBPP user interfaces, as of spring 2000.

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<sup>160</sup> See [http://www.frbchi.org/pubs-speech/publications/BOOKLETS/electronic\\_money](http://www.frbchi.org/pubs-speech/publications/BOOKLETS/electronic_money).

<sup>161</sup> See <http://www.nacha.org/Facts/directdepositcost>.

<sup>162</sup> Carrick Mollenkamp, "Entrepreneur's Tough Sell: Pay Your Bills On-line -- CheckFree Bought a Big Rival And Now Must Win Over Banks, Billers, Consumers," *Wall Street Journal*, February 18, 2000, page B1.

<sup>163</sup> Pete Hisey, "Outclicked in the on-line billing wars," *Credit Card Management*, 12:12, March 2000, pages 26-30.

**Table 1: Current Demand Distribution in EBPP User Interface**

	Percent of customers*
Bank	54
Quicken/Money	18
Brokerage	12
Web portal	10
AOL	9
Biller web site	6

\* Sums to more than 100 percent because some customers use more than one site.

Source: GartnerGroup poll, reproduced from Russell Redman, "Market potential," Bank Systems & Technology; 37:4, April 2000, pages 8-9.

These various sites typically rely on other firms to route the financial payments. The oldest and largest provider of these infrastructure services is the CheckFree Corporation ([www.checkfree.com](http://www.checkfree.com)), founded in 1981. In addition to providing the bulk of the infrastructure behind EBPP, CheckFree also maintains its own user interface.

The two principal competitors to CheckFree are Transpoint (a joint endeavor by Microsoft, First Data, and Citibank) and Spectrum (a bank consortium founded by Chase Manhattan Corporation, First Union, and Wells Fargo and including 11 other banks). In February 2000, CheckFree announced plans to merge with Transpoint.

While a number of smaller EBPP service providers exist,<sup>164</sup> most billing vendors rely on CheckFree or Spectrum. Due to the different technology platforms for making EBPP payments used by CheckFree, Spectrum, and other smaller competitors, many institutions sign up with multiple service providers to assure compatibility, which translates into increased investment costs for each platform. For example, although Wells Fargo, Chase Manhattan, and First Union

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<sup>164</sup> For example, EBPP services are also provided by Billserv.com, Princeton eCom, and Paytrust.com. Competitor BlueGill was also bought recently by CheckFree.

co-founded Spectrum and continue to develop its EBPP technologies, they all employ CheckFree for their consolidated bill payment services.

CheckFree and most of the smaller competitors market their services as behind-the-scenes engines that allow user interface clients such as banks, brokerage houses, and web portals to retain name branding of the EBPP.<sup>165</sup> The attraction of this model is that bill-payment on-line becomes another vehicle through which user interface hosts can cultivate customer loyalty and market more products, in addition to cutting costs for printing and mailing of bills. CheckFree charges \$4 per month per user to its user interface clients, who then pass that charge on to customers at a markup or cover the cost in hopes of building a larger, more attached client base. Spectrum has focused on designing an open access platform for member banks to share billing information through a switching network for bills and provide EBPP, rather than designing a marketable EBPP service product.

### *USPS eBillPay*

According to the Government Accounting Office, the movement from paper to electronic billing could represent a lost market of more than \$16 billion per year for the United States Postal Service (USPS), assuming that every bill now mailed is instead billed and paid on-line.<sup>166</sup> Billing statements currently represent 25 percent of the USPS revenue. In an attempt to replace some of this potential lost revenue, USPS partnered with CheckFree and a smaller provider

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<sup>165</sup> Some do operate their own user interface but do not market this service aggressively.

<sup>166</sup> General Accounting Office, "U.S. Postal Service: Development and Inventory of New Products," GAO/GGD-99-15, November 24, 1998. The GAO cites an estimate from a former Postmaster General that bills and other payments account for one fourth – or roughly \$16.4 billion -- of the Postal Service's revenue.

(YourAccounts.com) to transform USPS.com into a one-stop bill payment website.<sup>167</sup> eBillPay provides the portal and CheckFree maintains the EBPP operations.

In essence, the USPS acts as a well-positioned advertising link for CheckFree, sharing the profits from customers acquired in return for mass advertisement through the USPS heavy-volume website and information at each branch office across the nation. The USPS already has client relationships with most billers and customers. Its marketing strategy for the eBillPay service emphasizes its reputation for trustworthy, rain-sleet-snow-or-hail service.<sup>168</sup> Its press release announcing the new service highlighted that the USPS is “the country’s trusted third party and universal service provider.”<sup>169</sup>

Prices charged through USPS eBillPay are in the middle of the price range offered by its competitors in the spring of 2000. Despite common usage of CheckFree as the financial intermediary, different sites charged different amounts (see Table 2).

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<sup>167</sup> Susan Straight, “As Tax Filers Go Electronic, Will the Post Office Go Hungry?” *Business Week* On-line, April 14, 2000, <http://www.businessweek.com/bwdaily/dnflash/apr2000/nf00414a.htm>.

<sup>168</sup> “Secure? Of Course! It’s the United States Postal Service,” <http://www.usps.gov/EBPP/splash.html>.

<sup>169</sup> “Postal Service Offers Electronic Billing and Payment,” Release Number 26, April 5, 2000, available at <http://www.usps.com>.

**Table 2: EBPP Rate Comparisons**

Website	Trial Period	Base Rate	Conditions	Extra Bills
USPS eBillPay	6 months free	\$6.00/month	Up to 20 bills	\$0.40 each
		\$2.00/month	\$.40 each bill	
Paytrust.com	None	\$8.95/month	25 bills/month	–
CheckFree.com	3 months free	\$12.95/month	Up to 35 bills	\$2.95/10 bills
		Free	EBPP for subscribed billers only	
Bank One	1 month free	\$4.95/month	Unlimited	
Charles Schwab	None	\$6.95/month	Up to 20 bills	\$0.50 each
		Free	High end accounts	
Stanford Federal Credit Union	3 months free	\$5.00/month	Unlimited	
Wells Fargo	2 months free	\$5.00/month	Unlimited	
		Free	\$5K min balance	
Chase Manhattan		Free	Unlimited	
Yahoo!	3 months free	\$7.00/month	Up to 25 bills	\$0.40 each
		\$2.00/month	\$0.40 each bill	

Source: Data collected from firm websites as of April 30, 2000.

Some of these price differences reflected different levels of service. For example, the USPS eBillPay lacked a link to merge data from its site with personal financing software such as Quicken or Microsoft Money. Most other bank and brokerage sites and CheckFree.com did provide this capacity. As another example, Bank One did not charge penalties for insufficient funds to pay a bill; they merely canceled payment. On the other hand, eBillPay imposed service fees for insufficient funds (in addition to any fees charged by the customer's bank). Finally, other websites typically offered financial service management tools or search tools. Despite its apparent lower level of service, eBillPay did not offer the lowest price in the market.

## *Evaluating the USPS eBillPay Program*

As noted above, OMB Circular A-76 limits the government's ability to engage in commercial activities that compete with the private sector.<sup>170</sup> However, the eBillPay program would be explicitly allowed under the "Market Tests of Experimental Competitive Products" section of the proposed Postal Modernization Act of 1999 (H.R. 22).<sup>171</sup> If passed, this act would not only confirm the USPS's ability to provide EBPP, but also would allow the USPS to cross-subsidize eBillPay rates from other operations during an experimental period. However, given the short legislative session, the plethora of competing legislative imperatives, the substantial industry opposition, and the complexity of the issues involved, H.R. 22 was not passed by Congress this year. Nonetheless, the USPS intends to continue its EBPP activities.

The introduction of the eBillPay can be evaluated under the principles for governmental activity delineated above. Principles 2, 5, 7, 8, 10, 11, and 12 are relevant to judging whether the activity is appropriate for a government (or quasi-governmental) body.

The first question is whether the activity could be justified as fulfilling Principle 2 (improving the efficiency with which governmental services are provided is a proper governmental role). Could the provision of eBillPay be considered an internal efficiency action, in which the USPS is offering services to reduce the amount of labor necessary to achieve the USPS's charge to provide universal mail service? The fundamental question is whether electronic bill payment is a

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<sup>170</sup> Specifically, Circular A-76 states that, "In the process of governing, the Government should not compete with its citizens. The competitive enterprise system, characterized by individual freedom and initiative, is the primary source of national economic strength." See Appendix A for Circular A-76.

<sup>171</sup> H.R. 22 is available at <http://thomas.loc.gov>. In the absence of this legislation, some would argue that the USPS lacks statutory authority to provide its eBillPay service.

governmental service. Even if physical mail delivery should be provided by the government (itself the subject of significant debate),<sup>172</sup> the delivery of bills and payments electronically has revealed itself to be a competitive market provided by private-sector firms. Those who have on-line access do not seem to experience difficulty in obtaining electronic bill payment services.

Furthermore, the eBillPay program by itself will not provide universal access to electronic bill payment services: To use the service, individuals must have access to the World Wide Web, and the eBillPay program by itself does not provide such access. Indeed, a persistent “digital divide” exists in terms of Internet access between the information-rich (e.g., those with higher incomes, those with more education, and dual-parent households) and the information-poor (e.g., those who are younger, have lower incomes and education levels, or live in rural areas or central cities). For example, households with incomes of \$75,000 or more in urban areas are over 20 *times* more likely to have access to the Internet than those at the lowest income levels living in rural areas.

The eBillPay program by itself would do nothing to narrow these gaps. Even if eBillPay were supplemented by other programs that did help to narrow the digital divide, a legitimate question exists as to the appropriate bounds for universal service objectives. As Professor Dan Spulber of Northwestern University recently noted, “The Postal Service raises its traditional argument of universal service, namely that only the government can provide a low-cost service that’s available to all. And I think that’s not really the case. The private sector is fully capable. I

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<sup>172</sup> See J. Gregory Sidak and Daniel F. Spulber, *Protecting Competition from the Postal Monopoly* (AEI Press: Washington, 1996). See also J. Gregory Sidak, editor, *Governing the Postal Service* (AEI Press: Washington, 1994).

mean, where does it stop? At some point, the same arguments could be used to justify the Postal Service delivering pizza.”<sup>173</sup>

The eBillPay is thus difficult to justify under any of the “green light” principles. Since private-sector firms are already active in EBPP, it also does not qualify under Principle 5. And since those private-sector services seem to entail sufficient privacy and security protections, there is no need for direct government action under Principle 7 (the government has the responsibility of ensuring that mechanisms exist to protect privacy, security, and consumer protection on-line).

Principle 8 (the government should promote network externalities only with great deliberation and care) is somewhat more complicated. The EBPP market seems to be characterized by network externalities: the more billing vendors who participate, the more valuable the service is to consumers – and vice versa. But the private sector seems to be developing EBPP standards itself, and does not necessarily need further impetus from the government.

Furthermore, USPS’s association with CheckFree may inadvertently determine the standard used in EBPP. In particular, Spectrum is challenging CheckFree as a viable platform for EBPP infrastructure. Despite CheckFree’s current dominance as the standard for service provision, many unclaimed customers exist to support Spectrum’s growth and challenge to CheckFree in service provision. But the potential number of CheckFree end-users from a successful USPS eBillPay website could be enough to raise economies of scope to the point that Spectrum could not price competitively against CheckFree. Even if eBillPay does not ultimately provide

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<sup>173</sup> National Public Radio, “US Postal Service Plans To Let People Pay Their Bills On-line With A New Service,” *All Things Considered*, April 7, 2000.



CheckFree with a larger end-user base, the magnitude of the USPS as a client for CheckFree could influence the decisions of other billers to employ CheckFree as well, possibly distorting choices of firms in the EBPP service provision market. In summary, the activity thus does not seem to be justified under the “yellow light” principles.

The “red light” principles raise significant questions about the eBillPay program.<sup>174</sup> For example, Principle 10 states that the government should exercise substantial caution in entering markets in which private-sector firms are active. As noted above, many private-sector firms are active in the EBPP market. The ability of EBPP to consolidate bill payment and the existence (often) of a fixed cost to the consumer implies that it is unlikely that a consumer will employ more than one EBPP service. As a result, the potential field of customers, while still large and uncommitted, is finite. Despite USPS spokesperson Mark Saunders argument that “There is room in this marketplace for everyone,”<sup>175</sup> the ultimately finite nature of the market means that current competitors in the user interface market consider the entry of USPS a possible threat in their race to attract as many consumers as possible to their website. Prudential Securities recently argued that “the entry of USPS into the marketplace would create a tidal wave more than sufficient to swamp fledgling businesses without the vast resources and established brand

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<sup>174</sup> The General Accounting Office has raised additional questions about the Postal Service’s e-commerce activities. In testimony before Congress, Bernard Unger of GAO “identified three problem areas relating to USPS management of its e-commerce area: inconsistencies in identifying e-commerce and related initiatives and in reporting the status of these activities, which made it difficult to obtain a complete and accurate picture of USPS’ e-commerce activities; inconsistencies in following the required process for reviewing and approving its e-commerce initiatives, which raised questions as to whether the initiatives were appropriately planned and reviewed; and deficiencies in the financial information USPS provided for the e-commerce activities, which raised concerns about the accuracy and completeness of the financial reporting for e-commerce activities.” See testimony of Bernard Unger, General Accounting Office, before the Subcommittee on International Security, Proliferation, and Federal Services, Senate Committee on Governmental Affairs, “U.S. Postal Service: Electronic Commerce Activities and Legal Matters,” September 7, 2000.

<sup>175</sup> Shruti Dati, “USPS launches on-line bill payment service,” *Government Computer News*, April 17, 2000.

equity of the postal behemoth, and the threat of its entry might reasonably deter investors from funding startups however meritorious and innovative their offerings might be.”<sup>176</sup>

Principle 11 states that governmental activities that are intended to maximize net revenues or reduce competition should raise substantial concern – either because the activity is not appropriately governmental, or because the public-sector entity is not properly performing its role. For example, if the USPS were attempting to provide universal electronic bill payment service through the eBillPay program, its pricing strategy seems inconsistent with that objective: To promote universal service, even among those with access to the Internet, the USPS would have adopted a lower quality-adjusted price than others in the market. The USPS has created eBillPay because it is concerned that the projected loss in paper bill revenue to electronic payments will affect its ability to subsidize its responsibility for universal mail service. But cross-subsidizing universal mail service by entering a commercial market does not necessarily represent sound public policy. Furthermore, the eBillPay program may reduce competition in the EBPP market.

Finally, Principle 12 states that the government should only be allowed to provide goods or services for which appropriate privacy and conflict-of-interest protections have been erected. A significant question is whether the privacy rules that apply to the rest of the U.S. Postal Service will be extended to the eBillPay program. Industry leaders have expressed concern that data

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<sup>176</sup> Prudential Securities, “Washington E-commerce Report: U.S. Postal Service Plans Aggressive Move into Cyberspace – Including a Possible Dot-Com IPO,” January 26, 2000, page 3.

collected as part of the eBillPay program could be shared with other government agencies with no notice, permission, or due process.<sup>177</sup>

In summary, the principles described above appear to raise significant questions about whether the eBillPay program is an appropriate activity for a government agency to undertake.

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<sup>177</sup> See, for example, letter from Edward Black, William Archey, and Ken Wasch to Representatives Richard Armey, Billy Tauzin, and Robert Goodlatte, June 23, 2000.

### *Case Study: Lexis-Nexis*

The Lexis-Nexis group is a private-sector entity that provides fee-based legal, business, and government information products. It boasts the largest collection of public records in the United States. Lexis-Nexis adds enhancements to this information, such as indexing, linkages, and segmentation. The Lexis branch of the group is geared to the legal profession, and the Nexis business unit is primarily intended for business leaders, government officials, and academics.

The fundamental question raised by Lexis-Nexis is whether it provides services that *should* be provided by the government. It is thus a different type of case study: one in which the question is not whether an activity that the government is undertaking is appropriate, but rather whether the government should be undertaking an activity that it is not currently.

It is worth noting that WestLaw, another private-sector provider of legal information, raises similar issues to those raised by Lexis-Nexis. We focus here on Lexis-Nexis, but many of the same questions would be relevant to an analysis of WestLaw's activities.

### *Background on Lexis-Nexis*

Lexis began in 1973 as the first commercial, full-text legal information service, and was designed to improve the efficiency of legal practitioners' research. Nexis, the news and business arm, was added in 1979 and has grown to be the largest such on-line information service provider. The Lexis-Nexis company was originally founded as the Data Corporation in 1966, was bought by Mead Corp. in 1968, and was recently acquired by Reed Elsevier.

For a fee, Lexis allows a researcher to search for Federal and state cases by party name or citation. It also provides categories – such as Federal Cyberlaw – to browse. Lexis also provides up-to-date searchable Federal and State codes, and indexes four sources for Federal Regulations: the Federal Registry, the Code of Federal Regulations, the Federal Acquisition Regulations (FAR), and the US Attorney General Opinions. For completeness, Lexis also has a searchable database of European Union law.

Lexis provides searchable Tax Code documents such as the Internal Revenue Bulletin, the Internal Revenue Code, Treasury regulations, and various IRS Actions and Memoranda. (Lexis also provides non-government documentation on taxes from publishers like the ABA.) Lexis also indexes patents from 1971 to present, although coverage from January 5, 1971 through December 3, 1974 is incomplete.

Lexis also includes a secondary literature service, which includes news articles from legal newspapers, magazines and newsletters, as well as also articles from law reviews. One of Lexis's substantial advantages is that this literature service is integrated with the other legal search capabilities – so that, for example, the various academic articles written about a specific question involved in a specific case can be easily accessed. In addition, Lexis includes a career information area, including the Martindale-Hubbell directory of lawyers, law school directories, and tips on choosing a law school.

### *Government provision of legal information*

Surprisingly, much official legal information is not easily available from official government sources. Until April 2000, the Supreme Court did not even have its own homepage; instead, one was hosted at Cornell Law School's Legal Information Institute (LII) site.<sup>178</sup> The LII site has all Supreme Court decisions from 1990 through today indexed and searchable. For cases decided before 1990, selected historic decisions are posted at LII. The Supreme Court's website points users to government sites that provide free access to Supreme Court decisions between 1937 and 1975. These decisions are available and searchable by case number and key word on two government web sites (FedWorld and GPO Access).

State courts generally have their own home pages, but are often slow and difficult to navigate. These sites often include very recent decisions but lack significant archives. For example, California posts its decisions immediately but, until recently, those decisions were removed from the site after 100 days and web users were redirected to Westlaw.com's fee-based service to access them. Some states and all Circuits of the U.S. Courts of Appeal have websites hosted by law schools.

The government has several of its own law-related sites linked from Thomas, the Library of Congress's search engine for Congressional actions. The Government Printing Office (GPO) Access web site allows users to search five different versions of the U.S. Code – each version has another year included, so one can search for laws in effect in January of any year 1995-1999.

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<sup>178</sup> The new Supreme Court homepage ([www.supremecourtus.gov](http://www.supremecourtus.gov)) is still in its infancy. Many topics are well covered: there is information about visiting the Court and about the Justices, and Bar Admissions forms are available on-line. Other pieces could use improvement: for example, most links are cumbersome downloadable .pdf files and not interactive pages.

The databases, however, are often updated with a lag. GPO also provides access to the Federal Register back to 1995, and has searchable access to the Code of Federal Regulations.

The IRS website has issues of the Internal Revenue Bulletin downloadable in .pdf format back to 1996, but the Bulletins are not easily searchable. The IRS website does not provide indexed versions of IRS General Counsel Memos, or Actions on Decisions and Technical Memos, although they are accessible for experienced users through the electronic-FOIA Reading Room.

The U.S. Patent and Trademark Office's website offers searches of all U.S. patents by keyword, classification or patent number back to 1976. (As noted in Section I, by the end of 2001, every patent since the 1700s will be available on-line, and by the following year, more than 14 million Japanese and European patents will be too.<sup>179</sup>) Trademarks are also easily searchable at the Patent and Trademark Office site. Copyrights are searchable at the Library of Congress web site, although the interface is difficult to use and the Copyright Office does not offer any assistance with it.

### *Evaluating what legal information services the government should provide*

In evaluating what legal information the government should provide, Principles 1, 2, and 4 appear to be particularly relevant.

Principle 1 states that providing public data and information is a proper governmental role. Therefore, some governmental role is warranted in furnishing legal and other information. The

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<sup>179</sup> Remarks of Secretary of Commerce William M. Daley, E-GOV 99 Conference, July 1, 1999, available at: <http://www.doc.gov>.

key question is the precise scope of that role. For example, should the government provide all the services currently provided by Lexis-Nexis, or is the appropriate governmental role more limited than that?

Principle 2 states that improving the efficiency with which governmental services are provided is a proper governmental role. There is significant room for improvement in the efficiency with which even basic legal information is disseminated on-line. For example, although the famous *Roe v. Wade* (1973) decision turns up in both Lexis and at the Fedworld's 1937-75 decision database, more difficult cases are either absent or hard to find on government sites. The Supreme Court's 1988 *Hazelwood v. Kuhlmeier* decision (denying First Amendment privileges to school-sponsored student newspapers) was not available on a government website, but it was written up as a selected historic decision on Cornell's LII site linked from a government page. The U.S. District Court decision in *United States of America v. State of Missouri* (1975), which de-segregated suburban St. Louis schools, was also not available on the public sites.

Indeed, the Center for Democracy & Technology identifies court briefs from the Department of Justice and Federal Circuit Court web sites as two of the top 10 "most wanted" categories of governmental data that should be put on the Web, but are not. As the Center argues, "The federal Circuit and District Courts have been slow to embrace the Web. Only 5 of the 12 Circuit Courts of Appeals have Web sites providing access to opinions at no cost. While a number of law schools have stepped in to fill the gap, all circuit courts should have official sites providing the public with free access to court opinions. If five can do it, why can't the rest?"<sup>180</sup>

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<sup>180</sup> See <http://www.cdt.org>.



Principle 4 states that the government should exercise caution in adding specialized value to public data and information. For example, Lexis-Nexis provides linked access to academic and other non-governmental information regarding legal cases. While the government should provide on-line access to the court decisions themselves, the argument for providing such extensive value-added enhancement seems more dubious. To do so may go beyond the government's role in providing basic public information.

The bottom line is thus that the government should provide more information and improve the search capabilities, especially with regard to legal decisions, on its web sites. Some of this additional information would duplicate information currently available through Lexis-Nexis. That duplication does not justify failing to post the information on official web sites – especially if the goal is to promote public understanding and access to information, since Lexis-Nexis charges fees for access to its service. At the same time, however, parts of the Lexis-Nexis service – such as the linkages to relevant journal articles and the searchable news databases – should probably not be provided by the government, because they represent significant value-added that could be more efficiently provided by the private sector.

## ***Case Study: On-Line Tax Preparation Software***

During the 1998 tax year, 400,000 people filed their taxes on-line. Forrester Research estimated that this number increased to 1.25 million (still only one percent of all returns filed) for the 1999 tax year.<sup>181</sup>

On-line tax preparation is neither necessary nor sufficient for “electronic filing.” Electronic filing is the act of electronically transmitting a completed return, and therefore includes returns that are prepared off-line and then submitted electronically to the Internal Revenue Service (e.g., the return is prepared with a commercial software package on a desktop computer and then transmitted to the IRS). On-line tax preparation covers only those returns that are actually prepared through the World Web Wide (i.e., the return is filled out through a web browser without the downloading of any software). Note that on-line tax preparation need not imply on-line tax *filing*; many customers choose to prepare their tax returns on-line, and then print them out and mail them to the IRS.

The purpose of this case study is to explore what the government, and particularly the IRS, should and should not be doing in the area of on-line tax preparation. The issue is particularly important because on-line tax preparation is expected to grow rapidly. Indeed, one (admittedly somewhat controversial) estimate suggests that by 2003, more tax returns will be prepared using on-line services than the number prepared using traditional software packages.<sup>182</sup>

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<sup>181</sup> *Business Week*, April 17, 2000, page 200.

<sup>182</sup> Mike Hogan, “Tax Time Arrives: Tax,” *PC World*, January 13, 2000.

### *Industry profile*

Intuit and H&R Block operate the two largest on-line tax preparation sites. Intuit's Turbo Tax site drew one million hits in January 2000 and two million in February, while H&R Block had close to half a million and one million in those months. Turbo Tax is estimated to account for roughly 80 percent of filers who actually prepared their returns on web sites.<sup>183</sup> Intuit is also a leader in personal tax software, which is often used for electronic filing: For example, roughly one in five tax returns were prepared with a TurboTax product for the 1998-1999 filing season.

Intuit also offers a service, the "Quicken Tax Freedom Project," in which use of the company's on-line Turbo Tax web-based product ([www.turbotax.com](http://www.turbotax.com)) is provided free to taxpayers preparing and filing 1040EZ return.<sup>184</sup> The Project also offers free Federal and state return preparation and filings for families and individuals with less than \$20,000 in Adjusted Gross Income filing traditional 1040 returns. For other customers, Intuit charges \$9.95 per return (either Federal or State) for web-based electronic tax preparation. Intuit's software also enables taxpayers to transfer information from their Quicken personal financial management software into their Turbo Tax income tax returns, and guarantees the accuracy of return information.<sup>185</sup>

Intuit is also planning to introduce, within a few years, a fully automated tax return service.

Under such a service, a financial vendor such as Intuit would be able, at a taxpayer's discretion,

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<sup>183</sup> *Business Week*, April 17, 2000, pages 200-202.

<sup>184</sup> Taxpayers were eligible to file a 1040EZ for the 1999 tax year if they (1) were single or married filing jointly; (2) claimed no dependents; (3) did not claim a student loan interest deduction or educational credit; (4) were under age 65 and not blind; (5) had taxable income of less than \$20,000; (6) had income only from wages, salaries, tips, unemployment compensation, taxable scholarships and fellowships, Alaska Permanent Fund dividends, and taxable interest income not exceeding \$400; (7) did not receive advance earned income credit payments; and (8) owed no household employment taxes on wages paid to a household employee.

<sup>185</sup> Turbo Tax will pay any penalties plus interest if the defect is due to a calculation error in the program.

to collect electronically most of the data needed to prepare a tax return (from employers, banks, and brokers) and automatically prepare a pro-forma return for the taxpayer. The taxpayer could then review, modify, and approve the return.

H&R Block also brings substantial tax preparation experience to on-line tax preparation. H&R Block is a diversified company providing a wide range of financial products and services through its tax office network and Web site. During tax season 2000, H&R Block served 16.9 million taxpayers and generated \$1.4 billion in revenues through its 9,210 U.S. offices. That accounts for the company filing one out of every seven returns processed by the IRS in 2000. In addition, the company processed nearly one-half of all electronically filed returns accepted by the IRS this past tax season.

The H&R Block Web site ([www.hrblock.com](http://www.hrblock.com)) includes both an online tax preparation program and tax preparation software that can be downloaded. Taxpayers who fill out a 1040EZ return can prepare and file for free through [hrblock.com](http://hrblock.com). All other taxpayers pay \$9.95 to file a federal return and \$4.95 for a state return. The Web site also offers taxpayers the option of getting an Electronic Refund Advance of up to \$5,000 (for a \$19.95 fee).

Other sites for on-line tax preparation include Preptax.com ([www.preptax.com](http://www.preptax.com)), Etax Corporation ([www.tax1.com](http://www.tax1.com)), H.D. Vest Technology Services ([www.hdvest.com](http://www.hdvest.com)), [freetaxprep.com](http://freetaxprep.com) ([www.freetaxprep.com](http://www.freetaxprep.com)), and others.<sup>186</sup> Table 3 below shows the prices charged for on-line Federal and state filing by different providers; some of the price differences in the table reflect different service levels (e.g., live call-in assistance).

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<sup>186</sup> For a complete list of on-line filing software companies, see [http://www.irs.gov/elec\\_svs/company.html](http://www.irs.gov/elec_svs/company.html)

**Table 3: Selective on-line filing services**

	<i>On-line filing charge for 1040 Federal return</i>	<i>On-line filing charge for state return</i>
<b>Intuit's TurboTax</b>	\$9.95*	\$9.95*
<b>H&amp;R Block</b>	\$9.95*	\$4.95*
<b>Preptax.com</b>	\$14.95**	**
<b>Etax's Tax1</b>	\$7.95	Not available
<b>HD Vest</b>	Free	Free
<b>freetaxprep.com***</b>	Free***	Free***

\* No charge for taxpayers preparing and filing form 1040EZ. Intuit's site also offers free returns for individuals with less than \$20,000 in Adjusted Gross Income, regardless of 1040EZ eligibility.

\*\* Includes state return

\*\*\* Effective tax year 2000

### *The Internal Revenue Service*

Between the beginning of this year and tax filing day, the IRS web site recorded 968 million hits, making it one of the most frequently visited sites on the World Wide Web.<sup>187</sup> The web site allows taxpayers to download and retrieve tax publications and forms. For example, the site includes a 53-page form that provides detailed information on all aspects of the 1040 form, including worksheet spaces for necessary computations.<sup>188</sup> The IRS does not, however, allow consumers to prepare tax returns directly on its web site. Instead, the IRS simply points customers to an authorized provider, such as those firms mentioned above.<sup>189</sup>

### *Evaluating the IRS role in on-line tax preparation services*

In the IRS Restructuring and Reform Act of 1998, Congress outlined a series of ambitious goals for the agency with regard to electronic filing. Specifically, Congress stated that the IRS should

<sup>187</sup> Internal Revenue Service, "Electronic Transactions Set Records in Successful IRS Tax Season," April 26, 2000.

<sup>188</sup> <ftp.fedworld.gov/pub/irs-pdf/i1040gi.pdf>

<sup>189</sup> The IRS allows for certain filers to file over the telephone. To file via the telephone, a taxpayer must receive a TeleFile tax package from the IRS in the mail and plan on filing a 1040EZ. TeleFiler's must also have no dependents, have interest income of less than \$400, be under the age of 65, and have a total taxable income of less than \$50,000. The TeleFiler can pay any tax liability with a credit or debit card, or can mail a check to an IRS processing center. Additional information on the TeleFile program is available at [http://www.irs.gov/elec\\_svs/telefile.html](http://www.irs.gov/elec_svs/telefile.html)

cooperate with the private sector to expand competition and increase electronic filings, so that by 2007 at least 80 percent of all tax returns would be filed electronically. The legislation creates an Electronic Commerce Advisory Group to help the IRS fulfill this goal.

Delineating the proper role for the IRS in an electronic age involves difficult trade-offs. Our focus here is whether the IRS should provide on-line tax preparation service directly on its own web site. It should be emphasized that the IRS itself has not endorsed such a proposal, and is not officially planning its own tax preparation software. Nonetheless, some industry experts believe that the IRS is currently considering such a proposal.

The wealth of information on the IRS web site is one reason that it is so frequently visited. Providing clear and concise information, along with detailed explanations for those who require them, is consistent with Principle 1 (providing public data and information is a proper governmental role). The IRS should therefore continue to provide information and data on-line.

The legislatively mandated goal of promoting electronic filing is also consistent with Principle 2 (improving the efficiency with which governmental services are provided is a proper governmental role). Over time, electronic filing is expected to become significantly less costly for the IRS than paper filing. According to *Business Week*, “In 1999, e-returns cost \$4.14 to process, compared to \$4.28 for paper. But as more e-filers spread out the costs of filing on-line, the IRS expects this to drop to less than \$2.00 per form in 2007.”<sup>190</sup> The cost differential may be even more substantial once differential “downstream” costs, such as those involving audits, are included.

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<sup>190</sup> Susan Straight, “As Tax Filers Go Electronic, Will the Post Office Go Hungry?” *Business Week*, April 14, 2000.

The crux of this case study, however, involves more complicated issues than whether the IRS should be providing information on-line or promoting electronic filing. The key question is whether the IRS should be providing its own on-line tax preparation software. Evaluating that question involves tradeoffs among various principles. For example, from one perspective, providing on-line filing services is merely improving the efficiency with which governmental services are provided – it makes tax filing easier than it currently is.

The tax preparation itself, however, may represent significant value, as evidenced by the existing and extensive industry of tax attorneys and preparers to help taxpayers with individualized tax guidance. Allowing the IRS to provide on-line tax preparation services may therefore conflict with Principle 4 (the government should exercise caution in adding specialized value to public data and information). Given the number of private-sector firms already providing on-line filing, furthermore, an IRS on-line service may also conflict with Principle 10 (the government should exercise substantial caution in entering markets in which private-sector firms are active).

In addition, tax preparation involves sensitive financial information. An IRS on-line tax preparation service could therefore conflict with Principle 12 (the government should only be allowed to provide goods or services for which appropriate privacy and conflict-of-interest protections have been erected). In particular, the IRS's legitimate interest in ensuring revenue collection may conflict with legal tax avoidance activities by taxpayers. For example, would putative IRS tax preparation software ensure that taxpayers were aware of all possible (legal) deductions available to them? Would it record whether a taxpayer used an "override" option to

circumvent the pre-programmed algorithm in certain circumstances? What happens when a taxpayer using IRS software is later audited and/or prosecuted by the IRS? Is there an inherent conflict between the “preparer” and “enforcer” roles that the IRS would be assuming?

More broadly, Principle 6 states that the government should not directly provide a service on-line if private provision with regulation or appropriate taxation would be more efficient. On-line tax preparation seems amenable to private provision with appropriate regulation, especially since the IRS is in the midst of a crucial and substantial computer modernization program that absorbs significant technical resources.<sup>191</sup>

The existence of private providers, the potential efficiencies gained by regulation or subsidization, the privacy concerns that could arise if the Internal Revenue Service provided on-line tax preparation software directly, the high opportunity costs of diverting technical IRS resources away from its computer modernization effort, and the value-added that such software represents for many returns all raise substantial questions about the merit of direct IRS provision of such software.

At the same time, however, there is a legitimate public policy interest in ensuring that low-income taxpayers have access to subsidized tax preparation services. The public policy objective of ensuring subsidized access to tax preparation services need not be met, however, through

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<sup>191</sup> Creating IRS on-line tax preparation software could divert resources away from this core modernization effort. For a brief discussion of IRS efforts to improve its information technology systems, see David C. Williams, Treasury Inspector General For Tax Administration, “Progress and Problems in Implementing the Internal Revenue Service Restructuring and Reform Act Of 1998,” Joint Hearing before Committees of the United States Senate and House of Representatives, May 3, 2000.



direct government provision.<sup>192</sup> Indeed, private firms are already providing subsidized access to on-line tax preparation services.<sup>193</sup> Therefore, given the economies of scale in producing software, and the privacy protections and other limitations that would have to be placed on direct government provision even for the simplest returns, it seems difficult to justify the direct provision of on-line tax preparation services by the IRS at this time.<sup>194</sup> In other words, applying the principles delineated in this report suggests that the IRS should not provide direct on-line tax preparation services, even if private firms were not already providing subsidized access to low-income taxpayers. Instead, the government should combine private provision with appropriate subsidies for low-income families.

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<sup>192</sup> In its Fiscal Year 2001 Budget, the Clinton Administration proposed a temporary, refundable tax credit of \$10 for non-TeleFiler electronic filers and \$5 for TeleFilers. Although this proposal does not appear to be politically viable at this time, it does demonstrate one type of policy through which the government can ensure subsidized access to on-line tax preparation services without providing such services directly.

<sup>193</sup> Both Intuit and H&R Block, as mentioned above, already provide free on-line tax preparation and filing to those filing Form 1040EZ, and Intuit also provides free filing to anyone with Adjusted Gross Income below \$20,000. Intuit processed roughly 700,000 returns this year at no cost to the taxpayer, while H&R Block expects several hundred thousand taxpayers to use its free service next year. Furthermore, two providers – HD Vest and freetaxprep.com – provide free web-based tax preparation and filing to taxpayers of any income (freetaxprep.com’s services will be operational for next year’s filing season).

<sup>194</sup> Another proposal that has been discussed is to allow relaxed privacy protections to private providers in exchange for no-cost on-line tax preparation and filing services. Again, it is important to emphasize that the IRS has not proposed such a relaxation. Nonetheless, such a proposal would contradict the principles delineated above.

## ***Case Study: Fee-Based Search Engine Service from The National Technical Information Service***

On May 17, 1999, the National Technical Information Service (NTIS) – a small agency within the Department of Commerce – announced a joint partnership with Northern Light Technology, a privately held search engine company in Cambridge, Massachusetts. The goal of this partnership was to provide a fee-based Internet search engine to access documents spread across more than 20,000 Federal government web sites.

Several hours after the announcement, the Department of Commerce “abruptly put it on hold pending a review of whether it complies with federal policy on public access to government documents.”<sup>195</sup> Administration officials were concerned that the subscription fee associated with the search engine service was inconsistent with OMB Circular A-130, which states that agencies should “set user charges for information dissemination products at a level to recover the cost of dissemination but no higher.”

The purpose of this case study is to examine whether providing a fee-based search engine service is consistent with the principles delineated above.<sup>196</sup>

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<sup>195</sup> Leslie Walker, “Commerce Dept. Shuts Web Site Over Fee Issue,” *Washington Post*, May 18, 1999, page E03.

<sup>196</sup> There are additional issues within NTIS that could be examined, including its provision of web services to other government entities. However, we have chosen to focus on the issue of whether the government should provide a fee-based search engine.

## *The National Technical Information Service*

NTIS was created in 1950 to serve as a clearinghouse for the collection and dissemination of government scientific, technical, and engineering information. In creating NTIS, Congress directed it to be self-sustaining to the fullest extent possible. While NTIS charged customers for documents in its clearinghouse, it also received an appropriation from Congress until late 1980s.

In the 1980s, the Reagan Administration proposed privatizing NTIS.<sup>197</sup> While these efforts were ultimately unsuccessful, they did focus Congressional attention on the problems facing NTIS. In the end, Congress passed legislation making NTIS operate on a “self-sustaining” basis without receiving an annual appropriation. (As noted below, this case study may raise questions about the wisdom of setting up a public agency on this basis: the self-sustaining restriction may suggest that the activities of the agency need not be undertaken by the government. In addition, as we will see below, the self-sustaining restriction creates incentives for the government agency to enter new markets – even if such activity does not serve the public interest.)

As the Department of Commerce noted last fall, “the rapid growth of the Internet has fundamentally changed the way NTIS’ customers acquire and use information. Federal agencies are now able to offer their publications directly to the public over the Internet – for free.”<sup>198</sup>

With customers going elsewhere to obtain access to government scientific, technical, and engineering information, NTIS lost significant revenue in its clearinghouse function: Between

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<sup>197</sup> In 1988, then-Secretary of Commerce C. William Verity stated, “that the private sector, rather than the Federal sector should be responsible for the operation of those programs that are commercial in nature... This privatization effort will be implemented by developing one or more contracts for private sector performance of current NTIS activities.”

<sup>198</sup> Department of Commerce, *A Report on the National Technical Information Service (NTIS)*, Fall 1999.

fiscal year 1993 and fiscal year 1998, revenue declined 18 percent, falling from \$23.7 million to \$19.4 million. The number of documents that NTIS sold also dropped dramatically, from almost 2.3 million in 1993 to 1.3 million in 1998.<sup>199</sup>

Since NTIS is required by law to remain self-sustaining, the agency developed new business lines to offset the loss in clearinghouse revenue. One example provided by Robert Mallett, the Deputy Secretary of Commerce, is NTIS' production and sale of IRS tax forms on a CD-ROM.<sup>200</sup> NTIS has used revenues from these new business lines to remain "self-sustaining." However, the Commerce Department's Inspector General expressed concern that these new business lines may compete with the private sector. Specifically, the Inspector General stated: "We are also concerned that in order to replace lost sales, NTIS is seeking business opportunities on the perimeter of its statutory mission, where it risks competing against private businesses."<sup>201</sup>

In order to offset its deteriorating financial position and to more efficiently provide an important government service (searching government information), NTIS initiated a partnership with Northern Light to develop a highly efficient search engine of Federal government information. The service, [www.usgovsearch.com](http://www.usgovsearch.com), would allow people to simultaneously search about 3.8 million Federal government web pages, three million government research documents, and millions of articles Northern Light had collected from commercial publishers.<sup>202</sup>

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<sup>199</sup> Department of Commerce, *A Report on the National Technical Information Service (NTIS)*, Fall 1999.

<sup>200</sup> Testimony of Deputy Secretary of Commerce Robert Mallett Before the Senate Subcommittee on Science, Technology, and Space on the National Technical Information Service, October 21, 1999.

<sup>201</sup> Department of Commerce, Office of the Inspector General, *Semiannual Report to the Congress*, September 30, 1998, page 12.

<sup>202</sup> Leslie Walker, "Untangling the Web of Federal Net Sites," *The Washington Post*, May 17, 1999, page F06.

Under the plan announced on May 17, 1999, customers would be charged \$15 for a one-day pass, \$30 for monthly access, and \$250 for annual access, plus fees of \$1 to \$4 to access certain documents. In addition, the consumer would have to pay any fees associated with obtaining the document they were looking for (e.g., if the document currently costs \$15 to view through the NTIS web site, the customer would have to still pay that amount for access to the document). In other words, the fee was solely for access to this powerful search engine. Under the plan, Northern Light and NTIS would split the revenue generated by the search engine.

After reviewing NTIS' proposed joint venture with Northern Light, the Clinton Administration determined that the appropriate course of action would be for NTIS to withdraw from its partnership with Northern Light and allow the private-sector firm to administer the search engine on its own.<sup>203</sup> Subsequently, in June 2000, President Clinton announced the creation of firstgov.gov, a free site that will allow citizens to search all on-line government documents at no charge. According to media reports, the site will be able to search 500 million documents in less than a quarter of a second, and be capable of handling at least 100 million searches per day.<sup>204</sup>

### *Evaluation*

Three of our principles seem relevant for this case study (Principles 2, 10, and 11).

NTIS' effort to improve the search capability of Federal government information is entirely consistent with Principle 2 (improving the efficiency with which governmental services are

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<sup>203</sup> Leslie Walker, "On-line Search Service Loses U.S. Backing," *The Washington Post*, June 15, 1999, page E04. Interestingly, Northern Light maintained the same fee structure for annual and monthly subscriptions, but lowered its daily subscription from \$15 to \$5. In addition, it granted free access to public libraries and secondary schools.

<sup>204</sup> Tim Ryan, "Government to Create Web Portal, Clinton Says," *Reuters*, June 24, 2000.

provided is a proper governmental role). Since 1992, NTIS had offered a search engine of government web sites on its FedWorld.gov web site. However, this service searched only the home pages of Federal agencies and a limited number of other web pages linked to them. As described above, the usgovsearch.com search engine would have enabled individuals to search millions of Federal government web pages. Improving access to government information is clearly a proper governmental role.

Principle 10 is also relevant. A number of private-sector search engines provide access to governmental information. For example, Google ([www.google.com/unclesam](http://www.google.com/unclesam)) and GovBot provide access to nearly as many Federal web pages as the proposed usgovsearch.com.<sup>205</sup> (Both of these alternative search engine services are free.) Since a number of private-sector entities already exist, Principle 10 (the government should exercise substantial caution in entering markets in which private-sector firms are active) would suggest that the government should be careful in providing a search engine service. Nonetheless, if the government service were priced at marginal cost (i.e., effectively free), the benefits from Principle 2 would likely dominate the concerns associated with Principle 10, and such a service would appear to be beneficial.

The most important principle in this case study, however, is Principle 11, which states that the government should generally not aim to maximize net revenues or take actions that would reduce competition. Given NTIS' recent history, it seems clear that one reason NTIS decided to partner with Northern Light was to maximize revenues. Indeed, the presence of a fee – especially one

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<sup>205</sup> Ray Matthews, "Northern Light Connect with NTIS," *Econtent*, October 1, 1999.

as large as proposed when the partnership was announced – suggest that NTIS was trying to maximize net revenue, which is inconsistent with Principle 11.

Principle 11 raises serious questions about whether NTIS should be a “self-sustaining” agency. The core clearinghouse function of NTIS, which entails the collection and dissemination of government scientific, technical, and engineering information, is certainly a proper government role (see Principle 1). But based on the principles described above, it would be more appropriate for Congress to appropriate funds for this public good function than to require that NTIS offset losses in the clearinghouse with other business lines.<sup>206</sup>

In summary, the principles for government action on-line would suggest that NTIS should seek to improve the ability of individuals to access Federal government information through more powerful search engines. However, the existence of a user fee beyond the marginal cost of providing such a service is inappropriate. Therefore, private entities should generally provide any fee-based search engine services, not the public sector. In the end, this is precisely what happened in this case.

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<sup>206</sup> In August 1999, the Department of Commerce proposed transferring the clearinghouse function of NTIS to the Library of Congress and shutting down the remaining operations. Congress has not acted on the Department’s proposal. Consistent with the principles in this study, a recent report from the National Commission of Libraries and Information Sciences concluded that NTIS’ operating costs should be “defrayed by appropriated funds.” See U.S. National Commission on Libraries and Information Science, “Preliminary Assessment of the Proposed Closure of the National Technical Information Service (NTIS): A Report to the President and the Congress,” March 2000, page 3.

## Conclusions

The appropriate role of government in the economy is not a static concept: It must evolve as the economy does. As economic activity shifts toward information-intensive goods and services, public policy is being presented with a series of challenges, from protecting privacy to the appropriate taxation of on-line sales and jurisdictional concerns. This report has presented a set of principles and a decision tree that are intended to help public policy-makers adapt to the digital economy. The case studies have helped to illuminate the boundaries of appropriate governmental action. In some cases (e.g., the America's Job Bank), the government seems to have struck the appropriate balance among conflicting pressures. In other cases (e.g., eBillPay), the government seems to have over-stepped the boundaries that should apply to public provision of goods and services.

As part of this year's Presidential campaign, Vice President Gore and Texas Governor George W. Bush have proposed "e-government" initiatives; for example, the Vice President has called for placing nearly every government service on-line by 2003 and Governor Bush has proposed creating a \$100 million fund to support inter-agency e-government initiatives.<sup>207</sup> As more agencies move toward an e-government concept, the issues explored in this report become more acute. Policy-makers, analysts, and others may disagree with some of the principles and conclusions reached in this analysis. But this report will have served its purpose if it helps to spur debate over these issues, regardless of whether all its conclusions are accepted.

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<sup>207</sup> Information on Vice President Gore's and Governor Bush's e-government proposals are available at [www.algore.com](http://www.algore.com) and [www.georgewbush.com](http://www.georgewbush.com), respectively.



Failing to reconsider the appropriate role of government in a digital age, and blindly applying old principles to new challenges, would be a serious mistake for policy-makers to make. The difficulties of delineating principles such as those described in this report should not serve as an excuse for not tackling the policy issues facing government decision-makers. To ensure continued strong economic performance, a rigorous debate is necessary over how the role of government should evolve in an increasingly information-driven economy.

## Biographical Information

Dr. Joseph Stiglitz is Professor of Economics at Stanford University, and also serves as Senior Director and Chairman of the Advisory Committee at Sebago Associates, Inc. Previously, Dr. Stiglitz served as the World Bank's Chief Economist and Senior Vice President for Development Economics. Before joining the Bank, he was the Chairman of the President's Council of Economic Advisers. He has also served as a professor of economics at Princeton, Yale, and All Souls College, Oxford. As an academic, Dr. Stiglitz helped create a new branch of economics – "The Economics of Information" – which has received widespread application throughout economics. In the late 1970s and early 1980s, Dr. Stiglitz helped revive interest in the economics of technical change and other factors that contribute to long-run increases in productivity and living standards. Dr. Stiglitz is also a leading scholar of the economics of the public sector. The *Economist* magazine recently stated that Dr. Stiglitz's "brilliant work on the economics of information assures him a Nobel prize." [12/18/99] In 1979, the American Economic Association awarded Mr. Stiglitz its biennial John Bates Clark Award, given to the economist under 40 who has made the most significant contributions to economics.

Dr. Peter Orszag is President of Sebago Associates, Inc., and a lecturer in economics at the University of California, Berkeley. Prior to founding Sebago Associates, he served as Special Assistant to the President for Economic Policy at the White House, where his portfolio included Social Security, climate change, electricity restructuring, personal bankruptcy reform, and a variety of other economic policy issues. He has also served as an economic adviser to the Russian Government, and as Senior Economist and Senior Adviser on the President's Council of Economic Advisers. He graduated *summa cum laude* from Princeton University, where he was elected to Phi Beta Kappa, and obtained a M.Sc. and a Ph.D. in economics from the London School of Economics, which he attended as a Marshall Scholar. In describing Dr. Orszag, President Clinton's top economic adviser noted that "On the most complicated and technical areas I've had to deal with, he's the key person I turn to over and over again." [National Journal, 5/2/98.]

Jonathan Orszag is the Managing Director of Sebago Associates, Inc. Prior to joining Sebago Associates, Mr. Orszag served as the Assistant to the Secretary of Commerce and Director of the Office of Policy and Strategic Planning. In this capacity, Mr. Orszag was the Secretary of Commerce's chief policy adviser, responsible for coordinating the development and implementation of policy initiatives within the Department. He worked on a number of projects, including telecommunications issues, e-commerce, broadband deployment, and the "digital divide." Mr. Orszag previously served as an Economic Policy Advisor on President Clinton's National Economic Council (NEC) and as an economic aide to the Secretary of Labor. He received a M.Sc. in Economic and Social History from Oxford University, which he attended as a Marshall Scholar. He received his A.B. *summa cum laude* from Princeton University, was elected to Phi Beta Kappa, and was named a *USA Today* Academic All-American.

## Appendix A: Circular A-76

EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF MANAGEMENT AND BUDGET  
WASHINGTON, D.C. 20503

CIRCULAR NO. A-76 (REVISED 1999)

August 4, 1983

TO THE HEADS OF EXECUTIVE DEPARTMENTS AND ESTABLISHMENTS

SUBJECT: Performance of Commercial Activities

1. **Purpose.** This Circular establishes Federal policy regarding the performance of commercial activities and implements the statutory requirements of the Federal Activities Inventory Reform Act of 1998, Public Law 105-270. The Supplement to this Circular sets forth the procedures for determining whether commercial activities should be performed under contract with commercial sources or in-house using Government facilities and personnel.
2. **Rescission.** OMB Circular No. A-76 (Revised), dated March 29, 1979; and Transmittal Memoranda 1 through 14 and 16 through 18.
3. **Authority.** The Budget and Accounting Act of 1921 (31 U.S.C. 1 *et seq.*), The Office of Federal Procurement Policy Act Amendments of 1979. (41 U.S.C. 401 *et seq.*), and The Federal Activities Inventory Reform Act of 1998. (P. L. 105-270).
4. **Background.**
  - a. In the process of governing, the Government should not compete with its citizens. The competitive enterprise system, characterized by individual freedom and initiative, is the primary source of national economic strength. In recognition of this principle, it has been and continues to be the general policy of the Government to rely on commercial sources to supply the products and services the Government needs.
  - b. This national policy was promulgated through Bureau of the Budget Bulletins issued in 1955, 1957 and 1960. OMB Circular No. A-76 was issued in 1966. The Circular was previously revised in 1967, 1979, and 1983. The Supplement (Revised Supplemental Handbook) was previously revised in March 1996 (Transmittal Memorandum 15).
5. **Policy.** It is the policy of the United States Government to:
  - a. *Achieve Economy and Enhance Productivity.* Competition enhances quality, economy, and productivity. Whenever commercial sector performance of a Government operated commercial activity is permissible, in accordance with this Circular and its Supplement, comparison of the cost of contracting and the cost of in-house performance shall be performed to determine who will do the work. When conducting cost comparisons, agencies must ensure that all costs are considered and that these costs are realistic and fair.

- b. *Retain Governmental Functions In-House.* Certain functions are inherently Governmental in nature, being so intimately related to the public interest as to mandate performance only by Federal employees. These functions are not in competition with the commercial sector. Therefore, these functions shall be performed by Government employees.
  - c. *Rely on the Commercial Sector.* The Federal Government shall rely on commercially available sources to provide commercial products and services. In accordance with the provisions of this Circular and its Supplement, the Government shall not start or carry on any activity to provide a commercial product or service if the product or service can be procured more economically from a commercial source.
6. **Definitions.** For purposes of this Circular:
- a. A *commercial activity* is one which is operated by a Federal executive agency and which provides a product or service that could be obtained from a commercial source. Activities that meet the definition of an inherently Governmental function provided below are not commercial activities. A representative list of commercial activities is provided in Attachment A. A commercial activity also may be part of an organization or a type of work that is separable from other functions or activities and is suitable for performance by contract.
  - b. A *conversion to contract* is the changeover of an activity from Government performance to performance under contract by a commercial source.
  - c. A *conversion to in-house* is the changeover of an activity from performance under contract to Government performance.
  - d. A *commercial source* is a business or other non-Federal activity located in the United States, its territories and possessions, the District of Columbia or the Commonwealth of Puerto Rico, which provides a commercial product or service.
  - e. An *inherently Governmental function* is a function which is so intimately related to the public interest as to mandate performance by Government employees. Consistent with the definitions provided in the Federal Activities Inventory Reform Act of 1998 and OFPP Policy Letter 92-1, these functions include those activities which require either the exercise of discretion in applying Government authority or the use of value judgment in making decisions for the Government. Services or products in support of inherently Governmental functions, such as those listed in Attachment A, are commercial activities and are normally subject to this Circular. Inherently Governmental functions normally fall into two categories:

(1) The *act of governing*; i.e., the discretionary exercise of Government authority. Examples include criminal investigations, prosecutions and other judicial functions; management of Government programs requiring value judgments, as in direction of the national defense; management and direction of the Armed Services; activities performed exclusively by military personnel who are subject to deployment in a combat, combat support or combat service support role; conduct of foreign relations; selection of program priorities; direction of Federal employees; regulation of the use of space, oceans, navigable rivers and other

natural resources; direction of intelligence and counter-intelligence operations; and regulation of industry and commerce, including food and drugs.

(2) *Monetary transactions and entitlements*, such as tax collection and revenue disbursements; control of the Treasury accounts and money supply; and the administration of public trusts.

- f. A *cost comparison* is the process of developing an estimate of the cost of Government performance of a commercial activity and comparing it, in accordance with the requirements of the Supplement, to the cost to the Government for contract performance of the activity.
- g. *Directly affected parties* are Federal employees and their representative organizations and bidders or offerors on the instant solicitation.
- h. *Interested parties* for purposes of challenging the contents of an agency's Commercial Activities Inventory under the Federal Activities Inventory Reform Act of 1998 are:

(1) A private sector source that (A) is an actual or prospective offeror for any contract or other form of agreement to perform the activity; and (B) has a direct economic interest in performing the activity that would be adversely affected by a determination not to procure the performance of the activity from a private sector source.

(2) A representative of any business or professional association that includes within its membership private sector sources referred to in (1) above.

(3) An officer or employee of an organization within an executive agency that is an actual or prospective offeror to perform the activity.

(4) The head of any labor organization referred to in section 7103(a) (4) of Title 5, United States Code that includes within its membership officers or employees of an organization referred to in (3) above.

## **7. Scope.**

- a. Unless otherwise provided by law, this Circular and its Supplement shall apply to all executive agencies and shall provide administrative direction to heads of agencies.
- b. This Circular and its Supplement apply to printing and binding only in those agencies or departments which are exempted by law from the provisions of Title 44 of the U.S. Code.
- c. This Circular and its Supplement shall not:

(1) Be applicable when contrary to law, Executive Orders, or any treaty or international agreement;

(2) Apply to inherently Governmental functions as defined in paragraph 6.e.;

(3) Apply to the Department of Defense in times of a declared war or military mobilization;

(4) Provide authority to enter into contracts;

(5) Authorize contracts which establish an employer-employee relationship between the Government and contractor employees. An employer-employee relationship involves

close, continual supervision of individual contractor employees by Government employees, as distinguished from general oversight of contractor operations. However, limited and necessary interaction between Government employees and contractor employees, particularly during the transition period of conversion to contract, does not establish an employer-employee relationship.

(6) Be used to justify conversion to contract solely to avoid personnel ceilings or salary limitations;

(7) Apply to the conduct of research and development. However, severable in-house commercial activities in support of research and development, such as those listed in Attachment A, are normally subject to this Circular and its Supplement; or

(8) Establish and shall not be construed to create any substantive or procedural basis for anyone to challenge any agency action or inaction on the basis that such action or inaction was not in accordance with this Circular, except as specifically set forth in Part 1, Chapter 3, paragraph K of the Supplement, "Appeals of Cost Comparison Decisions" and as set forth in Appendix 2, Paragraph G, consistent with Section 3 of the Federal Activities Inventory Reform Act of 1998.

d. The requirements of the Federal Activities Inventory Reform Act of 1998 apply to the following executive agencies:

- (1) an executive department named in 5 USC 101,
- (2) a military department named in 5 USC 102, and
- (3) an independent establishment as defined in 5 USC 104.

e. The requirements of the Federal Activities Inventory Reform Act of 1998 do not apply to the following entities or activities:

- (1) the General Accounting Office,
- (2) a Government corporation or a Government controlled corporation as defined in 5 USC 103,
- (3) a non-appropriated funds instrumentality if all of its employees are referred to in 5 USC 2105(c), or
- (4) Depot-level maintenance and repair of the Department of Defense as defined in 10 USC 2460.

8. **Government Performance of a Commercial Activity.** Government performance of a commercial activity is authorized under any of the following conditions:

a. *No Satisfactory Commercial Source Available.* Either no commercial source is capable of providing the needed product or service, or use of such a source would cause unacceptable delay or disruption of an essential program. Findings shall be supported as follows:

(1) If the finding is that no commercial source is capable of providing the needed product or service, the efforts made to find commercial sources must be documented and made available to the public upon request. These efforts shall include, in addition to consideration of preferential procurement programs (see

Part I, Chapter 1, paragraph C of the Supplement) at least three notices describing the requirement in the *Commerce Business Daily* over a 90-day period or, in cases of *bona fide* urgency, two notices over a 30-day period. Specifications and requirements in the solicitation shall not be unduly restrictive and shall not exceed those required of in-house Government personnel or operations.

(2) If the finding is that a commercial source would cause unacceptable delay or disruption of an agency program, a written explanation, approved by the assistant secretary or designee in paragraph 9.a. of the Circular, must show the specific impact on an agency mission in terms of cost and performance. Urgency alone is not adequate reason to continue in-house operation of a commercial activity. Temporary disruption resulting from conversion to contract is not sufficient support for such a finding, nor is the possibility of a strike by contract employees. If the commercial activity has ever been performed by contract, an explanation of how the instant circumstances differ must be documented. These decisions must be made available to the public upon request.

(3) Activities may not be justified for in-house performance solely on the basis that the activity involves or supports a classified program or the activity is required to perform an agency's basic mission.

b. *National Defense.*

(1) The Secretary of Defense shall establish criteria for determining when Government performance of a commercial activity is required for national defense reasons. Such criteria shall be furnished to OMB, upon request.

(2) Only the Secretary of Defense or his designee has the authority to exempt commercial activities for national defense reasons.

c. *Patient Care.* Commercial activities performed at hospitals operated by the Government shall be retained in-house if the agency head, in consultation with the agency's chief medical director, determines that in-house performance would be in the best interests of direct patient care.

d. *Lower cost.* Government performance of a commercial activity is authorized if a cost comparison prepared in accordance with the Supplement demonstrates that the Government is operating or can operate the activity on an ongoing basis at an estimated lower cost than a qualified commercial source.

9. **Action Requirements.** To ensure that the provisions of this Circular and its Supplement are followed, each agency head shall:

a. Designate an official at the assistant secretary or equivalent level and officials at a comparable level in major component organizations to have responsibility for implementation of this Circular and its Supplement within the agency.

b. Establish one or more offices as central points of contact to carry out implementation. These offices shall have access to all documents and data pertinent to actions taken under the Circular and its Supplement and will respond in a timely manner to all requests concerning inventories, schedules, reviews, results of cost comparisons and cost comparison data.

c. Be guided by Federal Acquisition Regulation (FAR) Subpart 24.2 (Freedom of Information Act) in considering requests for information.

- d. Implement this Circular and its Supplement with a minimum of internal instructions. Cost comparisons shall not be delayed pending issuance of such instructions.
  - e. Ensure the reviews of all existing in-house commercial activities are completed within a reasonable time in accordance with the Federal Activities Inventory Reform Act of 1998 and the Supplement.
10. **Annual Reporting Requirement.** As required by the Federal Activities Inventory Reform Act of 1998 and Appendix 2 of the Supplement, no later than June 30 of each year, agencies shall submit to OMB a Commercial Activities Inventory and any supplemental information requested by OMB. After review and consultation by OMB, agencies will transmit a copy of the Commercial Activities Inventory to Congress and make the contents of the Inventory available to the public. Agencies will follow the process provided in the Supplement for interested parties to challenge (and appeal) the contents of the inventory.
11. **OMB Responsibility and Contact Point.** All questions or inquiries should be submitted to the Office of Management and Budget, Room 6002 NEOB, Washington, DC 20503. Telephone number (202) 395-6104, FAX (202) 395-7230.
12. **Effective Date.** This Circular and the changes to its Supplement are effective immediately.



**Attachment A**  
**OMB Circular No. A-76**

**EXAMPLES OF COMMERCIAL ACTIVITIES**

**Audiovisual Products and Services**

- Photography (still, movie, aerial, etc.)
- Photographic processing (developing, printing, enlarging, etc.)
- Film and videotape production (script writing, direction, animation, editing, acting, etc.)
- Microfilming and other microforms
- Art and graphics services
- Distribution of audiovisual materials
- Reproduction and duplication of audiovisual products
- Audiovisual facility management and operation
- Maintenance of audiovisual equipment

**Automatic Data Processing**

- ADP services - batch processing, time-sharing, facility management, etc.
- Programming and systems analysis, design, development, and simulation
- Key punching, data entry, transmission, and teleprocessing services
- Systems engineering and installation
- Equipment installation, operation, and maintenance

**Food Services**

- Operation of cafeterias, mess halls, kitchens, bakeries, dairies, and commissaries
- Vending machines
- Ice and water

**Health Services**

- Surgical, medical, dental, and psychiatric care
- Hospitalization, outpatient, and nursing care
- Physical examinations
- Eye and hearing examinations and manufacturing and fitting glasses and hearing aids
- Medical and dental laboratories
- Dispensaries
- Preventive medicine
- Dietary services
- Veterinary services

**Industrial Shops and Services**

- Machine, carpentry, electrical, plumbing, painting, and other shops
- Industrial gas production and recharging
- Equipment and instrument fabrication, repair and calibration
- Plumbing, heating, electrical, and air conditioning services, including repair
- Fire protection and prevention services
- Custodial and janitorial services
- Refuse collection and processing

**Maintenance, Overhaul, Repair, and Testing**

- Aircraft and aircraft components
- Ships, boats, and components
- Motor vehicles

- Combat vehicles
- Railway systems
- Electronic equipment and systems
- Weapons and weapon systems
- Medical and dental equipment
- Office furniture and equipment
- Industrial plant equipment
- Photographic equipment
- Space systems

**Management Support Services**

- Advertising and public relations services
- Financial and payroll services
- Debt collection

**Manufacturing, Fabrication, Processing, Testing, and Packaging**

- Ordnance equipment
- Clothing and fabric products
- Liquid, gaseous, and chemical products
- Lumber products
- Communications and electronics equipment
- Rubber and plastic products
- Optical and related products
- Sheet metal and foundry products
- Machined products
- Construction materials
- Test and instrumentation equipment

**Office and Administrative Services**

- Library operations
- Stenographic recording and transcribing
- Word processing/data entry/typing services
- Mail/messenger
- Translation
- Management information systems, products and distribution
- Financial auditing and services
- Compliance auditing
- Court reporting
- Material management
- Supply services

**Other Services**

- Laundry and dry cleaning
- Mapping and charting
- Architect and engineer services
- Geological surveys
- Cataloging
- Training – academic, technical, vocational, and specialized Operation of utility systems (power, gas, water steam, and sewage)
- Laboratory testing services

**Printing and Reproduction**

Facility management and operation

Printing and binding – where the agency or department is exempted from the provisions of Title 44 of the U.S. Code

Reproduction, copying, and duplication

Blueprinting

**Real Property**

Design, engineering, construction, modification, repair, and maintenance of buildings and structures; building mechanical and electrical equipment and systems; elevators; escalators; moving walks

Construction, alteration, repair, and maintenance of roads and other surfaced areas

Landscaping, drainage, mowing and care of grounds

Dredging of waterways

**Security**

Guard and protective services

Systems engineering, installation, and maintenance of security systems and individual privacy systems

Forensic laboratories

**Special Studies and Analyses**

Cost benefit analyses

Statistical analyses

Scientific data studies

Regulatory studies

Defense, education, energy studies

Legal/litigation studies

Management studies

**Systems Engineering, Installation, Operation, Maintenance, and Testing**

Communications systems - voice, message, data, radio, wire, microwave, and satellite

Missile ranges

Satellite tracking and data acquisition

Radar detection and tracking

Television systems - studio and transmission equipment, distribution systems, receivers, antennas, etc.

Recreational areas

Bulk storage facilities

**Transportation**

Operation of motor pools

Bus service

Vehicle operation and maintenance

Air, water, and land transportation of people and things

Trucking and hauling

## Appendix B: Memorandum for the Heads of Executive Departments and Agencies on Electronic Government

THE WHITE HOUSE

Office of the Press Secretary

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For Immediate Release

December 17, 1999

December 17, 1999

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

SUBJECT: Electronic Government

My Administration has put a wealth of information on-line. However, when it comes to most Federal services, it can still take a paper form and weeks of processing for something as simple as a change of address.

While Government agencies have created "one-stop-shopping" access to information on their agency web sites, these efforts have not uniformly been as helpful as they could be to the average citizen, who first has to know which agency provides the service he or she needs. There has not been sufficient effort to provide Government information by category of information and service - rather than by agency - in a way that meets people's needs.

Moreover, as public awareness and Internet usage increase, the demand for on-line Government interaction and simplified, standardized ways to access Government information and services becomes increasingly

important. At the same time, the public must have confidence that their on-line communications with the Government are secure and their privacy protected.

Therefore, to help our citizens gain one-stop access to existing Government information and services, and to provide better, more efficient, Government services and increased Government accountability to its citizens, I hereby direct the officials in this memorandum, in conjunction with the private sector as appropriate, to take the following actions:

1. The Administrator of General Services, in coordination with the National Partnership for Reinventing Government, the Chief Information Officers' Council, the Government Information Technology Services Board, and other appropriate agencies shall promote access to Government information organized not by agency, but by the type of service or information that people may be seeking; the data should be identified and organized in a way that makes it easier for the public to find the information it seeks.
2. The heads of executive departments and agencies (agencies) shall, to the maximum extent possible, make available on-line, by December 2000, the forms needed for the top 500 Government services used by the public. Under the Government Paperwork Elimination Act, where appropriate, by October 2003, transactions with the Federal Government should be available on-line for on-line processing of services. To achieve this goal, the Director of the Office of Management and Budget shall oversee agency development of

responsible strategies to make transactions available on-line.

3. The heads of agencies shall promote the use of electronic commerce, where appropriate, for faster, cheaper ordering on Federal procurements that will result in savings to the taxpayer.
4. The heads of agencies shall continue to build good privacy practices into their web sites by posting privacy policies as directed by the Director of the Office of Management and Budget and by adopting and implementing information policies to protect children's information on web sites that are directed at children.
5. The head of each agency shall permit greater access to its officials by creating a public electronic mail address through which citizens can contact the agency with questions, comments, or concerns. The heads of each agency shall also provide disability access on Federal web sites.
6. The Director of the National Science Foundation, working with appropriate Federal agencies, shall conduct a 1-year study examining the feasibility of on-line voting.
7. The Secretaries of Health and Human Services, Education, Veterans Affairs, and Agriculture, the Commissioner of Social Security, and the Director of the Federal Emergency Management Agency, working closely with other Federal agencies that provide benefit assistance to citizens, shall make a broad range of benefits and services available through private and secure electronic use of the Internet.

8. The Administrator of General Services, in coordination with the Secretary of the Treasury, the Secretary of Commerce, the Government Information Technology Services Board, the National Partnership for Reinventing Government, and other appropriate agencies and organizations, shall assist agencies in the development of private, secure, and effective communication across agencies and with the public, through the use of public key technology. In light of this goal, agencies are encouraged to issue, in coordination with the General Services Administration, a Government-wide minimum of 100,000 digital signature certificates by December 2000.
9. The heads of agencies shall develop a strategy for upgrading their respective agency's capacity for using the Internet to become more open, efficient, and responsive, and to more effectively carry out the agency's mission. At a minimum, this strategy should involve:
  - (a) expanded training of Federal employees, including employees with policy and senior management responsibility;
  - (b) identification and adoption of "best practices" implemented by leading public and private sector organizations;
  - (c) recognition for Federal employees who suggest new and innovative agency applications of the Internet;
  - (d) partnerships with the research community for experimentation

with advanced applications; and

(e) mechanisms for collecting input from the agency's stakeholders regarding agency use of the Internet.

10. Items 1-8 of this memorandum and my July 1, 1997, and November 30, 1998, memoranda shall be conducted subject to the availability of appropriations and consistent with agencies' priorities and my budget, and to the extent permitted by law.

11. The Vice President shall continue his leadership in coordinating the United States Government's electronic commerce strategy. Further, I direct that the heads of executive departments and agencies report to the Vice President and to me on their progress in meeting the terms of this memorandum, through the Electronic Commerce Working Group in its annual report.

WILLIAM J. CLINTON  
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## Appendix C: Circular A-130

### **MEMORANDUM FOR HEADS OF EXECUTIVE DEPARTMENTS AND ESTABLISHMENTS**

**SUBJECT:** Management of Federal Information Resources

1. Purpose
2. Rescissions
3. Authorities
4. Applicability and Scope
5. Background
6. Definitions
7. Basic Considerations and Assumptions
8. Policy
9. Assignment of Responsibilities
10. Oversight
11. Effectiveness
12. Inquiries
13. Sunset Review Date

**1. Purpose:** This Circular establishes policy for the management of Federal information resources. Procedural and analytic guidelines for implementing specific aspects of these policies are included as appendices.

**2. Rescissions:** This Circular rescinds OMB Circulars No. A-3, A-71, A-90, A-108, A-114, and A-121, and all Transmittal Memoranda to those circulars.

**3. Authorities:** This Circular is issued pursuant to the Paperwork Reduction Act (PRA) of 1980, as amended by the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35); the Privacy Act, as amended (5 U.S.C. 552a); the Chief Financial Officers Act (31 U.S.C. 3512 et seq.); the Federal Property and Administrative Services Act, as amended (40 U.S.C. 759 and 487); the Computer Security Act (40 U.S.C. 759 note); the Budget and Accounting Act, as amended (31 U.S.C. Chapter 11); Executive Order No. 12046 of March 27, 1978; and Executive Order No. 12472 of April 3, 1984.

**4. Applicability and Scope:**

a. The policies in this Circular apply to the information activities of all agencies of the executive branch of the Federal government.

b. Information classified for national security purposes should also be handled in accordance with the appropriate national security directives. National security emergency preparedness activities should be conducted in accordance with Executive Order No. 12472.

**5. Background:** The Paperwork Reduction Act establishes a broad mandate for agencies to perform their information resources management activities in an efficient, effective, and economical manner. To assist agencies in an integrated approach to information resources management, the Act requires that the Director of OMB develop and implement uniform and consistent information resources management policies; oversee the development and promote the use of information management principles, standards, and guidelines; evaluate agency information resources management practices in order to determine their adequacy and efficiency; and determine compliance of such practices with the policies, principles, standards, and guidelines promulgated by the Director.

**6. Definitions:**

a. The term "agency" means any executive department, military department, government corporation, government controlled corporation, or other establishment in the executive branch of the Federal government, or any independent regulatory agency. Within the Executive Office of the President, the term includes only OMB and the Office of Administration.

b. The term "audiovisual production" means a unified presentation, developed according to a plan or script, containing visual imagery, sound or both, and used to convey information.

c. The term "dissemination" means the government initiated distribution of information to the public. Not considered dissemination within the meaning of this Circular is distribution limited to government employees or agency contractors or grantees, intra- or inter-agency use or sharing of government information, and responses to requests for agency records under the Freedom of Information Act (5 U.S.C. 552) or Privacy Act.

d. The term "full costs," when applied to the expenses incurred in the operation of an information processing service organization (IPSO), is comprised of all direct, indirect, general, and administrative costs incurred in the operation of an IPSO. These costs include, but are not limited to, personnel, equipment, software, supplies, contracted services from private sector providers, space occupancy, intra-agency services from within the agency, inter-agency services from other Federal agencies, other services that are provided by State and local governments, and Judicial and Legislative branch organizations.

e. The term "government information" means information created, collected, processed, disseminated, or disposed of by or for the Federal Government.

f. The term "government publication" means information which is published as an individual document at government expense, or as required by law. (44 U.S.C. 1901)

g. The term "information" means any communication or representation of knowledge such as facts, data, or opinions in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audiovisual forms.

h. The term "information dissemination product" means any book, paper, map, machine-readable material, audiovisual production, or other documentary material, regardless of physical form or characteristic, disseminated by an agency to the public.

- i. The term "information life cycle" means the stages through which information passes, typically characterized as creation or collection, processing, dissemination, use, storage, and disposition.
- j. The term "information management" means the planning, budgeting, manipulating, and controlling of information throughout its life cycle.
- k. The term "information resources" includes both government information and information technology.
- l. The term "information processing services organization" (IPSO) means a discrete set of personnel, information technology, and support equipment with the primary function of providing services to more than one agency on a reimbursable basis.
- m. The term "information resources management" means the process of managing information resources to accomplish agency missions. The term encompasses both information itself and the related resources, such as personnel, equipment, funds, and information technology.
- n. The term "information system" means a discrete set of information resources organized for the collection, processing, maintenance, transmission, and dissemination of information, in accordance with defined procedures, whether automated or manual.
- o. The term "information system life cycle" means the phases through which an information system passes, typically characterized as initiation, development, operation, and termination.
- p. The term "information technology" means the hardware and software operated by a Federal agency or by a contractor of a Federal agency or other organization that processes information on behalf of the Federal government to accomplish a Federal function, regardless of the technology involved, whether computers, telecommunications, or others. It includes automatic data processing equipment as that term is defined in Section 111(a)(2) of the Federal Property and Administrative Services Act of 1949. For the purposes of this Circular, automatic data processing and telecommunications activities related to certain critical national security missions, as defined in 44 U.S.C. 3502(2) and 10 U.S.C. 2315, are excluded.
- q. The term "major information system" means an information system that requires special management attention because of its importance to an agency mission; its high development, operating, or maintenance costs; or its significant role in the administration of agency programs, finances, property, or other resources.
- r. The term "records" means all books, papers, maps, photographs, machine-readable materials, or other documentary materials, regardless of physical form or characteristics, made or received by an agency of the United States Government under Federal law or in connection with the transaction of public business and preserved or appropriate for preservation by that agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the government or because of the informational value of the data in them. Library and museum material made or acquired and preserved solely for reference or

exhibition purposes, extra copies of documents preserved only for convenience of reference, and stocks of publications and of processed documents are not included. (44 U.S.C. 3301)

s. The term "records management" means the planning, controlling, directing, organizing, training, promoting, and other managerial activities involved with respect to records creation, records maintenance and use, and records disposition in order to achieve adequate and proper documentation of the policies and transactions of the Federal Government and effective and economical management of agency operations. (44 U.S.C. 2901(2))

t. The term "service recipient" means an agency organizational unit, programmatic entity, or chargeable account that receives information processing services from an information processing service organization (IPSO). A service recipient may be either internal or external to the organization responsible for providing information resources services, but normally does not report either to the manager or director of the IPSO or to the same immediate supervisor.

## **7. Basic Considerations and Assumptions:**

a. The Federal Government is the largest single producer, collector, consumer, and disseminator of information in the United States. Because of the extent of the government's information activities, and the dependence of those activities upon public cooperation, the management of Federal information resources is an issue of continuing importance to all Federal agencies, State and local governments, and the public.

b. Government information is a valuable national resource. It provides the public with knowledge of the government, society, and economy – past, present, and future. It is a means to ensure the accountability of government, to manage the government's operations, to maintain the healthy performance of the economy, and is itself a commodity in the marketplace.

c. The free flow of information between the government and the public is essential to a democratic society. It is also essential that the government minimize the Federal paperwork burden on the public, minimize the cost of its information activities, and maximize the usefulness of government information.

d. In order to minimize the cost and maximize the usefulness of government information, the expected public and private benefits derived from government information should exceed the public and private costs of the information, recognizing that the benefits to be derived from government information may not always be quantifiable.

e. The nation can benefit from government information disseminated both by Federal agencies and by diverse nonfederal parties, including State and local government agencies, educational and other not-for-profit institutions, and for-profit organizations.

f. Because the public disclosure of government information is essential to the operation of a democracy, the management of Federal information resources should protect the public's right of access to government information.

- g. The individual's right to privacy must be protected in Federal Government information activities involving personal information.
- h. Systematic attention to the management of government records is an essential component of sound public resources management which ensures public accountability. Together with records preservation, it protects the government's historical record and guards the legal and financial rights of the government and the public.
- i. Agency strategic planning can improve the operation of government programs. The application of information resources should support an agency's strategic plan to fulfill its mission. The integration of IRM planning with agency strategic planning promotes the appropriate application of Federal information resources.
- j. Because State and local governments are important producers of government information for many areas such as health, social welfare, labor, transportation, and education, the Federal Government must cooperate with these governments in the management of information resources.
- k. The open and efficient exchange of scientific and technical government information, subject to applicable national security controls and the proprietary rights of others, fosters excellence in scientific research and effective use of Federal research and development funds.
- l. Information technology is not an end in itself. It is one set of resources that can improve the effectiveness and efficiency of Federal program delivery.
- m. Federal Government information resources management policies and activities can affect, and be affected by, the information policies and activities of other nations.
- n. Users of Federal information resources must have skills, knowledge, and training to manage information resources, enabling the Federal government to effectively serve the public through automated means.
- o. The application of up-to-date information technology presents opportunities to promote fundamental changes in agency structures, work processes, and ways of interacting with the public that improve the effectiveness and efficiency of Federal agencies.
- p. The availability of government information in diverse media, including electronic formats, permits agencies and the public greater flexibility in using the information.
- q. Federal managers with program delivery responsibilities should recognize the importance of information resources management to mission performance.

## **8. Policy:**

- a. Information Management Policy

1. Information Management Planning. Agencies shall plan in an integrated manner for managing information throughout its life cycle. Agencies shall:
  - (a) Consider, at each stage of the information life cycle, the effects of decisions and actions on other stages of the life cycle, particularly those concerning information dissemination;
  - (b) Consider the effects of their actions on members of the public and ensure consultation with the public as appropriate;
  - (c) Consider the effects of their actions on State and local governments and ensure consultation with those governments as appropriate;
  - (d) Seek to satisfy new information needs through interagency or intergovernmental sharing of information, or through commercial sources, where appropriate, before creating or collecting new information;
  - (e) Integrate planning for information systems with plans for resource allocation and use, including budgeting, acquisition, and use of information technology;
  - (f) Train personnel in skills appropriate to management of information;
  - (g) Protect government information commensurate with the risk and magnitude of harm that could result from the loss, misuse, or unauthorized access to or modification of such information;
  - (h) Use voluntary standards and Federal Information Processing Standards where appropriate or required;
  - (i) Consider the effects of their actions on the privacy rights of individuals, and ensure that appropriate legal and technical safeguards are implemented;
  - (j) Record, preserve, and make accessible sufficient information to ensure the management and accountability of agency programs, and to protect the legal and financial rights of the Federal Government;
  - (k) Incorporate records management and archival functions into the design, development, and implementation of information systems;
    1. Provide for public access to records where required or appropriate.
    2. Information Collection. Agencies shall collect or create only that information necessary for the proper performance of agency functions and which has practical utility.
    3. Electronic Information Collection. Agencies shall use electronic collection techniques where such techniques reduce burden on the public, increase efficiency of government programs, reduce costs to the government and the public, and/or provide better service to the public. Conditions favorable to electronic collection include:
      - (a) The information collection seeks a large volume of data and/or reaches a large proportion of the public;
      - (b) The information collection recurs frequently;
      - (c) The structure, format, and/or definition of the information sought by the information collection does not change significantly over several years;
      - (d) The agency routinely converts the information collected to electronic format;

- (e) A substantial number of the affected public are known to have ready access to the necessary information technology and to maintain the information in electronic form;
- (f) Conversion to electronic reporting, if mandatory, will not impose substantial costs or other adverse effects on the public, especially State and local governments and small business entities.

4. Records Management. Agencies shall:

- (a) Ensure that records management programs provide adequate and proper documentation of agency activities;
- (b) Ensure the ability to access records regardless of form or medium;
- (c) In a timely fashion, establish, and obtain the approval of the Archivist of the United States for, retention schedules for Federal records; and
- (d) Provide training and guidance as appropriate to all agency officials and employees and contractors regarding their Federal records management responsibilities.

5. Providing Information to the Public. Agencies have a responsibility to provide information to the public consistent with their missions. Agencies shall discharge this responsibility by:

- (a) Providing information, as required by law, describing agency organization, activities, programs, meetings, systems of records, and other information holdings, and how the public may gain access to agency information resources;
- (b) Providing access to agency records under provisions of the Freedom of Information Act and the Privacy Act, subject to the protections and limitations provided for in these Acts;
- (c) Providing such other information as is necessary or appropriate for the proper performance of agency functions; and
- (d) In determining whether and how to disseminate information to the public, agencies shall:

- (i) Disseminate information in a manner that achieves the best balance between the goals of maximizing the usefulness of the information and minimizing the cost to the government and the public;
- (ii) Disseminate information dissemination products on equitable and timely terms;
- (iii) Take advantage of all dissemination channels, Federal and nonfederal, including State and local governments, libraries

and private sector entities, in discharging agency information dissemination responsibilities;

(iv) Help the public locate government information maintained by or for the agency.

6. Information Dissemination Management System. Agencies shall maintain and implement a management system for all information dissemination products which shall, at a minimum:
  - (a) Assure that information dissemination products are necessary for proper performance of agency functions (44 U.S.C. 1108);
  - (b) Consider whether an information dissemination product available from other Federal or nonfederal sources is equivalent to an agency information dissemination product and reasonably fulfills the dissemination responsibilities of the agency;
  - (c) Establish and maintain inventories of all agency information dissemination products;
  - (d) Develop such other aids to locating agency information dissemination products including catalogs and directories, as may reasonably achieve agency information dissemination objectives;
  - (e) Identify in information dissemination products the source of the information, if from another agency;
  - (f) Ensure that members of the public with disabilities whom the agency has a responsibility to inform have a reasonable ability to access the information dissemination products;
  - (g) Ensure that government publications are made available to depository libraries through the facilities of the Government Printing Office, as required by law (44 U.S.C. Part 19);
  - (h) Provide electronic information dissemination products to the Government Printing Office for distribution to depository libraries;
  - (i) Establish and maintain communications with members of the public and with State and local governments so that the agency creates information dissemination products that meet their respective needs;
  - (j) Provide adequate notice when initiating, substantially modifying, or terminating significant information dissemination products; and
  - (k) Ensure that, to the extent existing information dissemination policies or practices are inconsistent with the requirements of this Circular, a prompt and orderly transition to compliance with the requirements of this Circular is made.
7. Avoiding Improperly Restrictive Practices. Agencies shall:
  - (a) Avoid establishing, or permitting others to establish on their behalf, exclusive, restricted, or other distribution arrangements that



interfere with the availability of information dissemination products on a timely and equitable basis;

- (b) Avoid establishing restrictions or regulations, including the charging of fees or royalties, on the reuse, resale, or redissemination of Federal information dissemination products by the public; and,
- (c) Set user charges for information dissemination products at a level sufficient to recover the cost of dissemination but no higher. They shall exclude from calculation of the charges costs associated with original collection and processing of the information. Exceptions to this policy are:
  - i. Where statutory requirements are at variance with the policy;
  - ii. Where the agency collects, processes, and disseminates the information for the benefit of a specific identifiable group beyond the benefit to the general public;
  - iii. Where the agency plans to establish user charges at less than cost of dissemination because of a determination that higher charges would constitute a significant barrier to properly performing the agency's functions, including reaching members of the public whom the agency has a responsibility to inform; or
  - iv. Where the Director of OMB determines an exception is warranted.

8. Electronic Information Dissemination. Agencies shall use electronic media and formats, including public networks, as appropriate and within budgetary constraints, in order to make government information more easily accessible and useful to the public. The use of electronic media and formats for information dissemination is appropriate under the following conditions:

- (a) The agency develops and maintains the information electronically;
- (b) Electronic media or formats are practical and cost effective ways to provide public access to a large, highly detailed volume of information;
- (c) The agency disseminates the product frequently;
- (d) The agency knows a substantial portion of users have ready access to the necessary information technology and training to use electronic information dissemination products;
- (e) A change to electronic dissemination, as the sole means of disseminating the product, will not impose substantial acquisition or

training costs on users, especially State and local governments and small business entities.

9. Safeguards. Agencies shall:

- (a) Ensure that information is protected commensurate with the risk and magnitude of the harm that would result from the loss, misuse, or unauthorized access to or modification of such information;
- (b) Limit the collection of information which identifies individuals to that which is legally authorized and necessary for the proper performance of agency functions;
- (c) Limit the sharing of information that identifies individuals or contains proprietary information to that which is legally authorized, and impose appropriate conditions on use where a continuing obligation to ensure the confidentiality of the information exists;
- (d) Provide individuals, upon request, access to records about them maintained in Privacy Act systems of records, and permit them to amend such records as are in error consistent with the provisions of the Privacy Act.

b. Information Systems and Information Technology Management

- 1. Evaluation and Performance Measurement. Agencies shall promote the appropriate application of Federal information resources as follows:
  - (a) Seek opportunities to improve the effectiveness and efficiency of government programs through work process redesign and the judicious application of information technology;
  - (b) Prepare, and update as necessary throughout the information system life cycle, a benefit-cost analysis for each information system:
    - i. at a level of detail appropriate to the size of the investment;
    - ii. consistent with the methodology described in OMB Circular No. A-94, "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs;" and
    - iii. that relies on systematic measures of mission performance, including the:

- (a) effectiveness of program delivery; (b) efficiency of program administration; and (c) reduction in burden, including information collection burden, imposed on the public;
  - (c) Conduct benefit-cost analyses to support ongoing management oversight processes that maximize return on investment and minimize financial and operational risk for investments in major information systems on an agency-wide basis; and
  - (d) Conduct post-implementation reviews of information systems to validate estimated benefits and document effective management practices for broader use.
- 2. Strategic Information Resources Management (IRM) Planning. Agencies shall establish and maintain strategic information resources management planning processes which include the following components:
  - (a) Strategic IRM planning that addresses how the management of information resources promotes the fulfillment of an agency's mission. This planning process should support the development and maintenance of a strategic IRM plan that reflects and anticipates changes in the agency's mission, policy direction, technological capabilities, or resource levels;
  - (b) Information planning that promotes the use of information throughout its life cycle to maximize the usefulness of information, minimize the burden on the public, and preserve the appropriate integrity, availability, and confidentiality of information. It shall specifically address the planning and budgeting for the information collection burden imposed on the public as defined by 5 C.F.R. 1320;
  - (c) Operational information technology planning that links information technology to anticipated program and mission needs, reflects budget constraints, and forms the basis for budget requests. This planning should result in the preparation and maintenance of an up-to-date five-year plan, as required by 44 U.S.C. 3506, which includes:
    - i. a listing of existing and planned major information systems;
    - ii. a listing of planned information technology acquisitions;
    - iii. an explanation of how the listed major information systems and planned information technology

- acquisitions relate to each other and support the achievement of the agency's mission; and
  - iv. a summary of computer security planning, as required by Section 6 of the Computer Security Act of 1987 (40 U.S.C. 759 note); and
  - (d) Coordination with other agency planning processes including strategic, human resources, and financial resources.
3. Information Systems Management Oversight. Agencies shall establish information system management oversight mechanisms that:
- (a) Ensure that each information system meets agency mission requirements;
  - (b) Provide for periodic review of information systems to determine:
    - i. how mission requirements might have changed;
    - ii. whether the information system continues to fulfill ongoing and anticipated mission requirements; and
    - iii. what level of maintenance is needed to ensure the information system meets mission requirements cost effectively;
  - (c) Ensure that the official who administers a program supported by an information system is responsible and accountable for the management of that information system throughout its life cycle;
  - (d) Provide for the appropriate training for users of Federal information resources;
  - (e) Prescribe Federal information system requirements that do not unduly restrict the prerogatives of State, local, and tribal governments;
  - (f) Ensure that major information systems proceed in a timely fashion towards agreed-upon milestones in an information system life cycle, meet user requirements, and deliver intended benefits to the agency and affected publics through coordinated decision making about the information, human, financial, and other supporting resources; and
  - (g) Ensure that financial management systems conform to the requirements of OMB Circular No. A-127, "Financial Management Systems."
4. Use of Information Resources. Agencies shall create and maintain management and technical frameworks for using information resources that document linkages between mission needs, information content, and information technology capabilities. These frameworks should guide both strategic and operational

IRM planning. They should also address steps necessary to create an open systems environment. Agencies shall implement the following principles:

- (a) Develop information systems in a manner that facilitates necessary interoperability, application portability, and scalability of computerized applications across networks of heterogeneous hardware, software, and communications platforms;
- (b) Ensure that improvements to existing information systems and the development of planned information systems do not unnecessarily duplicate information systems available within the same agency, from other agencies, or from the private sector;
- (c) Share available information systems with other agencies to the extent practicable and legally permissible;
- (d) Meet information technology needs through intra-agency and inter-agency sharing, when it is cost effective, before acquiring new information technology resources;
- (e) For Information Processing Service Organizations (IPSOs) that have costs in excess of \$5 million per year, agencies shall:
  - i. account for the full costs of operating all IPSOs;
  - ii. recover the costs incurred for providing IPSO services to all service recipients on an equitable basis commensurate with the costs required to provide those services; and
  - iii. document sharing agreements between service recipients and IPSOs; and
- (f) Establish a level of security for all information systems that is commensurate with the risk and magnitude of the harm resulting from the loss, misuse, or unauthorized access to or modification of the information contained in these information systems.

5. Acquisition of Information Technology. Agencies shall:

- (a) Acquire information technology in a manner that makes use of full and open competition and that maximizes return on investment;
- (b) Acquire off-the-shelf software from commercial sources, unless the cost effectiveness of developing custom software to meet mission needs is clear and has been documented;
- (c) Acquire information technology in accordance with OMB Circular No. A-109, "Acquisition of Major Systems," where appropriate; and

- (d) Acquire information technology in a manner that considers the need for accommodations of accessibility for individuals with disabilities to the extent that needs for such access exist.

## **9. Assignment of Responsibilities:**

a. All Federal Agencies. The head of each agency shall:

1. Have primary responsibility for managing agency information resources;
2. Ensure that the information policies, principles, standards, guidelines, rules, and regulations prescribed by OMB are implemented appropriately within the agency;
3. Develop internal agency information policies and procedures and oversee, evaluate, and otherwise periodically review agency information resources management activities for conformity with the policies set forth in this Circular;
4. Develop agency policies and procedures that provide for timely acquisition of required information technology;
5. Maintain an inventory of the agencies' major information systems, holdings and information dissemination products, as required by 44 U.S.C. 3511.
6. Implement and enforce applicable records management policies and procedures, including requirements for archiving information maintained in electronic format, particularly in the planning, design and operation of information systems.
7. Identify to the Director, OMB, statutory, regulatory, and other impediments to efficient management of Federal information resources and recommend to the Director legislation, policies, procedures, and other guidance to improve such management;
8. Assist OMB in the performance of its functions under the PRA including making services, personnel, and facilities available to OMB for this purpose to the extent practicable;
9. Appoint a senior official, as required by 44 U.S.C. 3506(a), who shall report directly to the agency head to carry out the responsibilities of the agency under the PRA. The head of the agency shall keep the Director, OMB, advised as to the name, title, authority, responsibilities, and organizational resources of the senior official. For purposes of this paragraph, military departments and the Office of the Secretary of Defense may each appoint one official.
10. Direct the senior official appointed pursuant to 44 U.S.C. 3506(a) to monitor agency compliance with the policies, procedures, and guidance in this Circular. Acting as an ombudsman, the senior official shall consider alleged instances of agency failure to comply with this Circular and recommend or take corrective action as appropriate. The senior official shall report annually, not later than February 1st of each year, to the Director those instances of alleged failure to comply with this Circular and their resolution.

b. Department of State. The Secretary of State shall:

1. Advise the Director, OMB, on the development of United States positions and policies on international information policy issues affecting Federal Government information activities and ensure that such positions and policies are consistent with Federal information resources management policy;

2. Ensure, in consultation with the Secretary of Commerce, that the United States is represented in the development of international information technology standards, and advise the Director, OMB, of such activities.

c. Department of Commerce. The Secretary of Commerce shall:

1. Develop and issue Federal Information Processing Standards and guidelines necessary to ensure the efficient and effective acquisition, management, security, and use of information technology;
2. Advise the Director, OMB, on the development of policies relating to the procurement and management of Federal telecommunications resources;
3. Provide OMB and the agencies with scientific and technical advisory services relating to the development and use of information technology;
4. Conduct studies and evaluations concerning telecommunications technology, and concerning the improvement, expansion, testing, operation, and use of Federal telecommunications systems and advise the Director, OMB, and appropriate agencies of the recommendations that result from such studies;
5. Develop, in consultation with the Secretary of State and the Director of OMB, plans, policies, and programs relating to international telecommunications issues affecting government information activities;
6. Identify needs for standardization of telecommunications and information processing technology, and develop standards, in consultation with the Secretary of Defense and the Administrator of General Services, to ensure efficient application of such technology;
7. Ensure that the Federal Government is represented in the development of national and, in consultation with the Secretary of State, international information technology standards, and advise the Director, OMB, of such activities.

d. Department of Defense. The Secretary of Defense shall develop, in consultation with the Administrator of General Services, uniform Federal telecommunications standards and guidelines to ensure national security, emergency preparedness, and continuity of government.

e. General Services Administration. The Administrator of General Services shall:

1. Advise the Director, OMB, and agency heads on matters affecting the procurement of information technology;
2. Coordinate and, when required, provide for the purchase, lease, and maintenance of information technology required by Federal agencies;
3. Develop criteria for timely procurement of information technology and delegate procurement authority to agencies that comply with the criteria;
4. Provide guidelines and regulations for Federal agencies, as authorized by law, on the acquisition, maintenance, and disposition of information technology, and for implementation of Federal Information Processing Standards;
5. Develop policies and guidelines that facilitate the sharing of information technology among agencies as required by this Circular;
6. Manage the Information Technology Fund in accordance with the Federal Property and Administrative Services Act as amended;

f. Office of Personnel Management. The Director, Office of Personnel Management, shall:

1. Develop and conduct training programs for Federal personnel on information resources management including end-user computing;
2. Evaluate periodically future personnel management and staffing requirements for Federal information resources management;
3. Establish personnel security policies and develop training programs for Federal personnel associated with the design, operation, or maintenance of information systems.

g. National Archives and Records Administration. The Archivist of the United States shall:

1. Administer the Federal records management program in accordance with the National Archives and Records Act;
2. Assist the Director, OMB, in developing standards and guidelines relating to the records management program.

h. Office of Management and Budget. The Director of the Office of Management and Budget shall:

1. Provide overall leadership and coordination of Federal information resources management within the executive branch;
2. Serve as the President's principal adviser on procurement and management of Federal telecommunications systems, and develop and establish policies for procurement and management of such systems;
3. Issue policies, procedures, and guidelines to assist agencies in achieving integrated, effective, and efficient information resources management;
4. Initiate and review proposals for changes in legislation, regulations, and agency procedures to improve Federal information resources management;
5. Review and approve or disapprove agency proposals for collection of information from the public, as defined by 5 CFR 1320.3;
6. Develop and maintain a Government-wide strategic plan for information resources management.
7. Evaluate agencies' information resources management and identify cross-cutting information policy issues through the review of agency information programs, information collection budgets, information technology acquisition plans, fiscal budgets, and by other means;
8. Provide policy oversight for the Federal records management function conducted by the National Archives and Records Administration, coordinate records management policies and programs with other information activities, and review compliance by agencies with records management requirements;
9. Review agencies' policies, practices, and programs pertaining to the security, protection, sharing, and disclosure of information, in order to ensure compliance, with respect to privacy and security, with the Privacy Act, the Freedom of Information Act, the Computer Security Act and related statutes;
10. Resolve information technology procurement disputes between agencies and the General Services Administration pursuant to Section 111 of the Federal Property and Administrative Services Act;



11. Review proposed U.S. Government Position and Policy statements on international issues affecting Federal Government information activities and advise the Secretary of State as to their consistency with Federal information resources management policy.

12. Coordinate the development and review by the Office of Information and Regulatory Affairs of policy associated with Federal procurement and acquisition of information technology with the Office of Federal Procurement Policy.

**10. Oversight:**

a. The Director, OMB, will use information technology planning reviews, fiscal budget reviews, information collection budget reviews, management reviews, and such other measures as the Director deems necessary to evaluate the adequacy and efficiency of each agency's information resources management and compliance with this Circular.

b. The Director, OMB, may, consistent with statute and upon written request of an agency, grant a waiver from particular requirements of this Circular. Requests for waivers must detail the reasons why a particular waiver is sought, identify the duration of the waiver sought, and include a plan for the prompt and orderly transition to full compliance with the requirements of this Circular. Notice of each waiver request shall be published promptly by the agency in the Federal Register, with a copy of the waiver request made available to the public on request.

**11. Effectiveness:** This Circular is effective upon issuance. Nothing in this Circular shall be construed to confer a private right of action on any person.

**12. Inquiries:** All questions or inquiries should be addressed to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503. Telephone: (202) 395-3785.

**13. Sunset Review Date:** OMB will review this Circular three years from the date of issuance to ascertain its effectiveness.